

This figure is still a bit shy of the total cost, however. Corps overhead which the managers did not calculate into their estimates, boosts the cost figures. Additionally, federal magistrate expenditures, while not subsidized by the Corps, also increases the overall federal cost of the visitor protection program. Considering the low number of citations, the Corps is not significantly impacting the magistrates workload.

Adjusting the total, in lieu of these additional expenses, the study team has found that the cost to the federal government for the current Corps of Engineers visitor protection services is between \$3 and \$4 million annually. In comparison, in fiscal year 1971-1972, the National Park Service (NPS) estimated that \$10,942,000 was spent for police protection services in the national parks (exclusive of the U.S. Park Police operations). Comparing these figures with annual attendance, NPS is spending almost four times more per capita than the Corps of Engineers for visitor protection.

#### Local Law Enforcement

One of the most difficult questions to answer in this study was a determination of the level and corresponding cost of services provided by local law enforcement at Corps of Engineers lakes. While the research team surveyed enough lakes to draw conclusions, the complexity of the findings in this area was extreme. The variance alone in personnel salaries throughout the country is overwhelming not to mention the multiplicity of law enforcement agencies with jurisdiction on and around the Corps lakes. Nonetheless, the PRC/PMS extrapolations, while far from precise, are felt to reflect the current cost of service to Corps lakes.

The cost information in this section was compiled from the site visits, questionnaires, and selected phone surveys conducted with state and local law enforcement agencies providing various degrees of law enforcement at Corps lakes. Table 7-3 clearly represents the findings

TABLE 7-3

LOCAL LAW ENFORCEMENT EXPENDITURES  
AT CORPS OF ENGINEERS LAKES

| Class of Lake                                   | Local Law Enforcement Expenditures | Total                   |
|-------------------------------------------------|------------------------------------|-------------------------|
| Urban A lake with attendance over one million   | \$100,000-\$150,000                | \$3,200,000-\$4,800,000 |
| Rural A lakes with attendance over one million  | \$35,000-\$45,000                  | \$1,365,000-\$1,755,000 |
| Urban A lakes with attendance under one million | \$15,000-\$20,000                  | \$165,000-\$220,000     |
| Rural A lakes with attendance under one million | \$10,000-\$15,000                  | \$380,000-\$570,000     |
| All B lakes                                     | \$5,000-\$10,000                   | \$415,000-\$830,000     |
| <u>*Subtotal</u>                                | \$5,675,000 to                     | \$8,355,000             |
| Overhead, court, and other related costs - 20%  |                                    |                         |
| <u>Grand Total</u>                              | \$6,810,000-\$10,026,000           |                         |

\*Includes \$150,000-\$180,000 for the unclassified lakes.

(Source: PRC/PMS)

that at the average urban A lake with attendance over one million, local and state law enforcement agencies are spending between \$100,000 and \$150,000 annually, on services provided at Corps lakes; expenditures are between \$35,000 and \$40,000 at the rural Class A lakes with attendance over one million; expenditures are between \$15,000 and \$20,000 at the urban A lakes with attendance under one million; expenditures are between \$10,000 and \$15,000 at the rural A lakes with attendance under one million; expenditures are between \$5,000 and \$10,000 at the B lakes; and expenditures are between \$150,000 and \$180,000 for the A lakes that were unclassified. Thus, with overhead costs, and other related expenses, state and local law enforcement agencies and governments are spending between \$6,810,000 and \$10,026,000 annually to provide services at Corps of Engineers lakes.

As the table reveals, local law enforcement is spending on the average over twice as much as the Corps of Engineers to provide law enforcement services at the Corps lakes. As with the previous cost estimates, the cost of overhead, including administrative paper work, communications, and other costs, in addition to expenditures for booking, processing and detaining suspects arrested on Federal property, court costs and probation costs, increases the figure for law enforcement and visitor protection. Considering the figures also do not include C and D lakes, this is an accurate indication of the amount of free service rendered recreation users and the Corps. This service includes:

- Water surface patrol
- Radio dispatching
- Handling of serious misdemeanor and felony calls for service
- Follow-up investigation
- Traffic accidents
- Booking and detention of suspects.

The major portion of free service at Corps lakes is rendered by state and local water surface patrols. As Table 7-4 reveals, only

TABLE 7-4

AGENCIES PROVIDING PATROL  
ON U.S. ARMY CORPS OF ENGINEERS WATER SURFACE

| CHARACTER OF LAKE | CORPS OF ENGINEERS | STATE      | LOCAL COUNTY OR CITY | OTHER FEDERAL | CORPS AND STATE | CORPS AND LOCAL CITY-CO. | CORPS STATE CITY-CO. | CORPS STATE OTHER FED. | STATE AND CITY-CO. | OTHER      |
|-------------------|--------------------|------------|----------------------|---------------|-----------------|--------------------------|----------------------|------------------------|--------------------|------------|
| URBAN             | 6                  | 23         | 8                    | 2             | 20              | 6                        | 5                    | 4                      | 3                  | 20         |
| RURAL             | 2                  | 30         | 8                    | 3             | 42              | 2                        | 7                    | 12                     | 4                  | 31         |
| TOTAL PERCENT     | 8<br>3.4           | 53<br>22.3 | 16<br>6.7            | 5<br>2.1      | 62<br>26.0      | 8<br>3.4                 | 12<br>5.0            | 16<br>6.7              | 7<br>2.9           | 51<br>21.4 |

(Source: PRC/PMS Self-Report Questionnaire)

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eight Corps lakes autonomously provided water surface patrol. At 34 percent of the lakes the Corps does not provide any service on the water and at 41 percent of the lakes the Corps is assisted by state, local, or other federal water patrols. The study team found the state and local water surface patrols to be well-staffed and in most cases carrying on a far more active visitor protection program on the lakes surface than the Corps rangers. Typically, the state and local patrols were trained peace officers with full police authority.

Thus, the study found that state and local governments and law enforcement agencies are spending approximately \$7 million to \$10 million annually to provide law enforcement and visitor protection at Corps of Engineers lakes.

In conclusion, it has been revealed, that the overall costs provided by the federal government and state and local governments for the purpose of providing visitor protection services for recreation users at Corps of Engineers lakes is somewhere between \$10-14 million annually. If the cost of crime and vandalism, discussed in the previous chapter, is considered, then the amount of money lost due to crime and vandalism at the Corps lakes and the amount spent on overall visitor protection services at the Corps lakes combined exceeds \$25 million.

## Chapter 8

## STANDARDS FOR VISITOR PROTECTION

A. Introduction

One of the primary objectives of this study was to determine visitor protection requirements at Corps of Engineer lakes. In the Description of Work Segment of the contract between PRC/PMS and the Corps of Engineers this objective is stated as follows:

The general requirement of the study is to determine the type and level of need for visitor protection at Corps of Engineers lakes in relation to preventative law enforcement, misdemeanor and felony.

Specifically, the contract requires PRC/PMS to:

- Define levels of adequate visitor protection;
- Establish standards to achieve adequate visitor protection services

The purpose of this chapter is to address these issues directly in order to establish a conceptual framework with which to assess the cost and perceived effectiveness of the available alternatives defining an "adequate" level of visitor protection.

This, by far, is the most difficult question faced by law enforcement administrators. The term "adequate" can only be understood in terms of some reference point. For example, if every visitor to a recreation project was assaulted or otherwise victimized by crime, we would have no trouble in stating that existing visitor protection systems are clearly "inadequate." On the other hand, if no visitor was victimized by crime,

we could unequivocally state that existing visitor protection systems are clearly "adequate." However, the issue is complicated by the fact that the term "visitor protection" encompasses more than simply protection from crime.

The term is also understood to include: protection from hazardous conditions; protection of environmental and recreation resources from intended and unintended destructive acts by users; provision of emergency aid and rescue services; provision of information services; enforcement of appropriate traffic, boating, wildlife protection, and other laws and user regulations; and enhancement of the visitors sense of security. In short, the term "visitor protection" embodies most of the traditional services provided by law enforcement agencies as well as those services provided by recreation and resource management agencies.

Further, our field studies indicate that criminal incidents of widely varying frequency and severity were reported at virtually every site visited. Thus, we are faced with a relatively ambiguous situation in which no "pure" case dominates (e.g., is one crime too many? Are one hundred crimes too many?). Additionally, the high rates of vandalism to government property reported at a significant number of recreation projects visited requires serious consideration in assessing the question of visitor protection.

The first point to be considered in assessing the quality of visitor protection is that of the legal liability of the landowner or the person that controls the land. Opinions relating to this issue have been rendered to the Bureau of Land Management by Regional Solicitors as follows:

Professor Posser, an eminent authority on the Law of Torts, points out that the great majority of courts now accept that the basis of liability to a visitor is not any economic benefit to the occupier of premises, but a representation to be implied that he encourages others to enter to further a purpose of his own, that reasonable care has been exercised, to make the place safe for those who come for that purpose.<sup>1</sup>

More specifically, the solicitor states that:

The occupier is not an insurer of the safety of invitees and his duty is only to exercise reasonable care for their protection. He must not only warn the visitor of dangers which he knows, but also must inspect the premises to discover possible defects. There is no liability, however, for harm resulting from conditions from which no unreasonable risk was to be anticipated, or those which the occupier did not know and could not have discovered with reasonable care . . . Likewise, in the usual case, there is no obligation to protect the invitee against dangers which are known to him.

Thus, from the traditional legal point of view it seems reasonably clear that the Corps of Engineers has no specific requirement, other than the exercise of reasonable care, to "protect" visitors to its recreation projects.

However, this is not to say that the absence of tort liability is the only consideration in assessing visitor protection requirements. Most Corps projects have been justified to Congress on the basis of multiple use--wherein recreation is one such use. Thus, the Corps has a basic responsibility to Congress to assure that recreation projects are managed in such a way as to make them safe and attractive places for citizen users. This responsibility has been codified in Article 327.1 of Title 36, where the Corps policy is: "to provide the public with safe and healthful recreational opportunities within all water resource development projects administered by the Corps of Engineers." Also, it must be recognized that all appropriate state and federal laws apply to persons utilizing federally-administered recreation projects. An enforcement mechanism must therefore exist to assure that such projects do not become enclaves where illegal behavior can be indulged in without fear of arrest. To this end, as a professional, administrative agency, the Corps of Engineers has a basic responsibility to the public to assure that an adequate level of law enforcement is available at its projects.

With this background in mind, it is then necessary to sharpen our definition of the term "visitor protection." Obviously, the first

question to be addressed here is an identification of just what it is we want to "protect" the visitor from. To answer this question, we must know why the visitor enters a Corps recreation project and what he does while he is there.

Recreation is a fundamental human need. Recreation involves voluntary or self-motivated activity that is intended to enrich the lives of individuals. In reviewing the types of recreation activities performed at Corps of Engineer developed projects, we find that the following uses predominate: (1) swimming; (2) overnight camping; (3) boating; (4) fishing; (5) water skiing; (6) picnicking; (7) hiking; (8) family and group outings; (9) natural resource and wildlife education; (10) use of off-road vehicles (mini-bikes, motorcycles, dune-buggies and four-wheel drive vehicles); (11) sports activities.

At the same time, since most Corps projects are multiple-use facilities, parts of the project are used for flood control, power generation, fish hatcheries, and a variety of other socially useful purposes. These other uses are mentioned here because their existence predicates that certain areas of a project be designated as "off limits" for public usage, either to protect the environment or to keep the public out of potentially dangerous areas.

To preserve the natural beauty and wildlife of a project, the Corps has designated and developed certain areas of the project for public usage. Thus, in a large water resource project with a limited number of developed areas, there is a built-in usage capacity. This means that recreation users are, in a sense, competing for limited resources. These developed areas, such as parks, beaches and playgrounds, are visited by persons seeking a meaningful, personal, recreation experience. Consequently, the impact of antisocial behavior of certain users may be more seriously offensive or impair satisfaction of recreation users than in other areas or circumstances. This discussion brings us to our first definition of what is meant by visitor protection.

The concept of visitor protection must encompass the ability of recreation users to enjoy their visits without being harassed, victimized, or unduly disturbed by persons with criminal intentions or by others who have utter disregard for the rights of others. Since, as part of the "social contract," we have all surrendered the right of personal retaliation to legally constituted authority, "society," in this case the government, has a moral responsibility to assure that its agents of law enforcement are available at recreation projects it controls.

Next, the concept of visitor protection must encompass, to a certain extent, the protection of a visitor from his own actions that could endanger himself and/or others. Examples here might include careless or blatantly reckless operation of speedboat, a motor vehicle, or off-road vehicle; trespassing in a dangerous area; careless building of fires; diving in water with hidden obstructions.

Also the Corps manages and, in a sense, acts as a trustee of the public to preserve and protect land, wildlife and water resources in the public domain for present and future generations. To accomplish this mission the Corps establishes protective regulations that require an enforcement presence to assure that such regulations are respected.

Finally, and as earlier noted, Corps of Engineer projects involve multiple uses. The dams and associated facilities (e.g. power lines, fish runs, locks, buildings, and equipment) are extremely expensive and vital components of the project. These facilities must be protected from vandalism, sabotage, and other advertent or inadvertent destructive acts. The potential for catastrophic damage exists if, for example, a major dam is dynamited or rendered inoperative. Such facilities must be guarded or otherwise protected as yet another facet of "visitor protection."

In summary, the final definition of visitor protection must include consideration of (1) protection of lawful recreation users from the anti-

social or criminal acts of other visitors to the project; (2) protection of the user from inadvertent or advertent acts of his own that are dangerous to himself and/or others; (3) protection and preservation of the environmental resources of the project; and (4) protection of man-made facilities at the project from vandalism, sabotage, or other destructive acts.

With this definition of visitor protection as our starting point, we must now establish some means of assessing the question of "adequacy" of visitor protection.

To begin this discussion it will be helpful to review how law enforcement manpower requirements and standards of service have been developed and applied in the past. Following this review, PRC/PMS will relate the best principles of such methods to the problem of the establishment of "adequate" levels and standards of visitor protection at Corps projects.

**B. Historical Review of Methods for Establishing Manpower Requirements and Service Levels for Law Enforcement Agencies**

There are two separate but interrelated problems to be addressed in this section. The first problem is to review the methods by which law enforcement agencies establish manpower needs. The second problem relates to defining levels of service. The objective of this section is to review and critique current methodologies for addressing these issues and to determine their relevance to the purposes of this study.

The establishment of a "formula" to determine law enforcement of-ficers required to police American states, counties, and cities is, as yet, an unresolved technical problem. The primary problem that bars the development of such a formula is the inability to establish a relationship between police activity and resulting phenomena. Our review of the literature shows that there is virtually nothing but a priori judgments as to the extent that police services affect resulting events. As one prominent administrator (Lloyd Ficklin) stated in his criticism of at-tempts to devise a general manpower formula:

I think it is a wish to have a simple magic to use on a City Council (or other legislative group) to get a specific level of manpower--usually higher--for a department.

Ficklin further notes that there is no such thing as a general formula for determining manpower needs that can be used on a uniform national basis because of the importance of local factors such as geography, crime rate, fiscal resources, service orientation, department policies, and community attitude. Given these factors it is essential that we define certain of the terms to be used in this section. These terms are "manpower requirements," "allocation," and "distribution." We use the terms as follows:

- Manpower Requirements: The total number of persons needed to achieve an optimum level of police service in a locale both in terms of effectiveness and efficiency.
- Manpower Allocation: Overall partition of available officers by function (e.g., administration, patrol, support services, or investigational).
- Manpower Distribution: Assignment of a given number of personnel according to chronological and geographical factors as they relate to workload.

Surprisingly, it has been the latter concept which has received the heaviest attention of law enforcement researchers. Studies by Vollmer, Gaunt, The Los Angeles Police Department, Shumate and Crowther, Larsen, and McEwen, among others are indicative of the state of the art in this area.<sup>3</sup>

The resource allocation question has been addressed in very few studies. The work of Fennessy, et al, and the Chicago Police Department represents virtually the only findings in this area.<sup>4</sup>

The central question of manpower requirements has generally been ignored because of its ambiguity. Our review of the literature on this issue indicates that certain very theoretical studies are available,<sup>5</sup> but the only practical studies reviewed by PRC/PMS include Michigan State University,<sup>6</sup> and the British Home Office.<sup>7</sup>



The Michigan State study reviewed existing methods of determining manpower requirements. This study notes that "... no method is free from arbitrary, subjective judgments, some of the methods that have been and are being used by police departments to justify manpower are completely inadequate except as psychological levels which can be used to move administrators, naive taxpayers and councilmen." (p.3)

Specifically, the study points out that the most prevalent approaches used are (1) comparison of police per population ratios, and (2) comparison of crime rates. Each method will be discussed below.

#### Comparison of Police per Population Ratios

Utilization of this method involves a comparison between communities of approximately similar population and number of police officers per 1,000 population. It is usually expressed as a ratio. The current national average is 2.0 officers per 1,000 computed on an annual basis. The MSU study cited earlier points out that this method is based on false assumptions as follows:

First, it ignores community differences such as social and economic conditions, street construction and design, population characteristics, culture and customs of the people, and finally, the characteristics of the courts and other agencies involved in the processes of criminal justice.

This method also assumes equal competency on the part of police officers. Because of the wide variation in recruitment, selection and training standards, we know that this assumption is totally invalid. Finally, this method assumes that what is sufficient for one department is sufficient for another. By way of example, the National Commission on Productivity analyzed data on police per 1,000 population and found that:

... wide dispersion exists among cities of like size, much larger than the dispersion as a function of population size. For example, among cities of 60,000 to 70,000 population, there is an almost four-fold variation (0.7 to 2.7 employees per thousand), with a mean of 1.6 employees per thousand.

Among cities of 400,000 to 500,000 population, there is a two and a half times variation (1.4 to 3.6 employees per 1,000). Although, larger cities have a larger number of employees per capita on the average, there are many small cities that have more police per capita than larger cities.<sup>8</sup>

As this discussion indicates, the use of comparative ratios of police per 1,000 population among like-sized cities leaves much to be desired. The attractiveness of this measure rests in its ease of computation; however, it is clear that it lacks any objective validity.

#### Comparison of Crime Rates

This is another popular method of manpower justification used by many U.S. police agencies. This method starts with a base period and assumes that available manpower at that time was sufficient to deal with the crime problem. Fluctuations in subsequent crime rates are analyzed and are used to justify requests for additional manpower. The earlier referenced Michigan State Study points out the following deficiencies of this method:

...it does not take into consideration other aspects of the police duties which may in some instances be more important than crime. It is not at all unusual to find a police department spending eighty to ninety percent of its time performing services for the public; therefore, they could spend a disproportionate amount of time on crime and cut the rate, yet still need more manpower.<sup>9</sup>

Additionally, crime statistics can be manipulated even without the user being dishonest or in violation of procedures.

With respect to this latter point, enormous rate changes can occur when improved reporting procedures are instituted. Recent research clearly indicates that the actual, as opposed to the reported, crime rate is at least two to five times higher.

The Home Office Police Research and Development Branch conducted an extensive study in 1967 and 1968 entitled Assessment of Police Establishment by Formula. The state purposes of this research were to:

- Analyze the apparent differences in standards between one force and the other.
- Examine the factors which have a bearing on police establishments and to select those which are reliable and measurable.
- Create a common standard of manning based on acceptable factors.

It is first worth quoting several of the major assumptions of this study before discussing its findings. With respect to "adequate" police protection, the authors of this study stated:

Although in their 1962 report the "Royal Commission on Police" did not attempt to define precisely what is meant by an "adequate" standard of policing, it accepted the view that in most cases the existing establishment represented an up to date assessment of the total number of police officers required to provide adequate police protection. (p. 3)

. . . In the absence of a more objective criterion we have no alternative but to take such generally accepted standards of policing as a basis on which to build a formula. (p. 3)

In short, this group found that there is at present "no absolute standard of policing, a formula is not likely to provide a single number of men required by a force at a particular time."

The study goes on to point out the reasons for this situation. As they note, some towns have always enjoyed a high standard of policing because they have strong community spirit, adequate resources, a pleasant environment, and so forth. On the other hand, other communities have always been short of police because of the poverty of the city, even balances between political parties, (which inhibit both parties from supporting actions that lead to tax increases), or an inability to attract a sufficient number of able police recruits because of the unattractive characteristics of the town combined with high wage rates in local industry. They conclude that:

. . . every community has therefore grown accustomed to its own standard of policing and "adequate" policing now means different standards of protection to citizens in different parts of the country. (p. 16)

The study group developed a series of "formulae" for computing manpower requirements based primarily on population, crime rate, road miles, and total acreage. Three types of formulae are presented for large urban, suburban, and rural areas. After reviewing these methods in detail, it is concluded that they are based on false assumptions and are invalid for our purposes. This is not to say that they are wrong, only that they represent the state of the art at the present time.

To develop a "truly" objective manpower requirement for law enforcement, it would be necessary to locate (in economic terms) the point of diminishing manpower returns. This "point" is where the amount of social and monetary costs incurred by adding an additional police officer is greater than the benefits derived from his or her presence. As John Angell has noted in commenting on this issue:

The trouble with attempting to apply this is the impossibility of isolating all the social and economic costs involved. Since this is not presently possible, it is impossible to determine the point of diminishing returns . . .

In the absence of such a measure, many theorists recommend basing manpower requirements on weighted variables such as:

1. Land area
2. Population
3. Geography
4. Number of streets
5. Nature of street traffic
6. Numbers of pedestrians
7. Number and type of schools, churches and hospitals
8. Number of poolrooms, bowling alleys, saloons and clubs that need unusual police protection
9. Amount of heavy industry
10. Social and cultural conditions
11. Nationality and composition of population
12. Age and sex of population
13. Proportion of males to females and married to unmarried.

The trouble with this method is that these are subjective factors thought to have a relationship to the demand for police services. The few studies available that have attempted to correlate police service demand with a variety of demographic variables are generally ambiguous. For example, the Rand Corporation in studying the relationship of demand for service to socioeconomic data in 30 large cities found:

... the most disturbing and surprising results occur for the correlation of index crimes per capita with the demographic variables (percent non-white, percent poor under \$3,000, percent age 15-29, percent moving within past two years). No significant pairwise correlations exist at all.<sup>10</sup>

The Urban Institute Report on police productivity studied this question and produced different results. They found that:

In no case did the socioeconomic variations explain more than a small part of the effectiveness and productivity variations.<sup>11</sup>

Again, based on these results, aside from the fact that no comparable studies are available for recreation areas, we must conclude that the use of this method is simply not applicable.

The most common method used by sophisticated U.S. police agencies to estimate needed manpower requirements is the evaluation of past workloads. For example, if in year "X", the police agency investigated 2,000 traffic accidents, and each accident required 2 man-hours to fully investigate, then we know that 4,000 man-hours are absolutely necessary to process this type of event. In justifying its budget request the police agency then projects the expected number of accidents for the coming year, applies the workload factor and computes necessary manpower needs. However, such a method also has some major conceptual difficulties. The Michigan State study mentioned earlier states that this method is based on several assumptions, which, if wrong, render the estimates inaccurate.

- The department is administratively and organizationally sound (e.g., administrative overhead is at a minimum; the activities being used by the department are most effective in achieving the goals; and organizational relationships are proper).

- The most inexpensive methods of performing activities are being utilized (e.g., civilians and clerical personnel in place of officers where possible).
- Proper work routines and quality standards are established.

Basically, the workload measurement technique involves quantification of work to determine how much is performed in a given amount of time. Specific activities to be performed involve identification and measurement of work units (e.g., handling calls for service, providing information, services, security and regulatory inspections). The next step is to calculate the average servicing times and then to estimate the number of work units that can be expected to occur. The two figures are multiplied to produce the total amount of work required in a given period of time.

The method is fraught with uncertainties, but is frankly the best method available at the present time. The chief difficulty with this method is that one always winds up with an unallocated portion of time which is arbitrarily labeled preventive patrol. Unfortunately, there are no objective standards for preventive patrol as well as considerable doubt that "preventive" patrol actually "prevents" anything.

There are, however, certain inescapable facts to be considered when establishing a police operation. These facts are as follows:

- To man one patrol officer position on one eight-hour shift, 365 days per year will require 1.68 man-years to account for days off, vacations, and sick time.
- To man one patrol officer position on two eight-hour shifts, 365 days per year will require 3.36 man years to account for days off, vacation, and sick time.
- To man one patrol officer position on three eight-hour shifts, 365 days per year will require 5.04 man-years to account for days off, vacations and sick time.

In addition, as Roy McLaren, a noted authority on police resource allocations and distribution, states:

Previous experience has shown that about one-third of an officers time on shift should be allocated to protect against the tendency for cases to occur in groups rather than to be spaced equitably throughout the tour of duty. An additional one third of an officers time should be available for representative patrol activity, and the remaining one-third should be available to handle calls-for-service.<sup>12</sup>

These, then, are the basic considerations that must be addressed in reviewing and evaluating police manpower requirements.

Within the context of police manpower requirements, it is also necessary to review the state of the art as to standards of performance.

#### C. Standards of Police Performance

In the preceding section, the historical methods of establishing police manpower requirements were reviewed. However, even if such manpower needs could be established in an objective fashion, they are meaningless unless the manner in which such individuals perform their duties conforms to some standards of organizational and functional performance. In short, both manpower requirements and performance standards are inextricably related to each other. For example, the time requirements to perform a particular task are basically a function of what it is the officer does. What the officer does and how he does it can only be judged in terms of what activities are judged to be an acceptable level of performance. In turn, the number of officers available exerts a significant impact on the amount of time an officer has available to perform his duties.

There are no "objective" ways of establishing particular standards of police performance other than in relating such tasks to statutory requirements and on the basis of informed professional judgment.

In this regard, PRC/PMS has reviewed all available standards of police performance set by prestigious national groups as well as material developed by outstanding law enforcement agencies. The basic reference documents with respect to the police performance issue are as follows:

- National Advisory Commission on Criminal Justice Standards and Goals. The Police, (Chairman Chief Edward M. Davis), Washington, D.C., January 1973.
- The President's Commission on Law Enforcement and Administration of Justice. Police Task Force Report, Washington, D.C. 1967.
- The American Bar Association project on Standards for Criminal Justice. The Urban Police Function, Institute of Judicial Administration, June, 1973.
- O.W. Wilson and R. McLaren. Police Administration (3rd edition) McGraw Hill Book Company, New York, 1972.
- The Urban Institute, Part III: Measuring "Police Crime Control Productivity," in The Challenge of Productivity Diversity: Improving Local Government Productivity Measurement and Evaluation, Washington, D.C. 1972.
- The International City Management Association. Municipal Police Administration (6th Edition) Washington, D.C. 1969.
- National Park Service, "Proposed Activity Standards for Law Enforcement," Department of the Interior, National Park Service, 1974.

While there are other documents touching on police standards, those listed above are the most widely regarded and cited. Basically, all of these reports address two levels of the performance issue: 1) organizational and 2) functional. It is extremely important to note that all such standards are based on professional judgment supplemented by research evidence when available.

Rather than attempt to discuss the literally hundreds of individual standards, we will attempt to synthesize the primary areas of standards, particularly those we deem applicable to the provision of law enforcement/visitor protection services by the Corps of Engineers. These standards, as follows, begin with the phrase "a police agency should:"

- Fully acknowledge that the limits of police authority are prescribed by law and that there can be no situation which justifies extralegal practices.



- Fully acknowledge that there are times when force must be used in the performance of police tasks, but that there can be no situation which justifies the use of unreasonable force.
- Fully acknowledge that in their exercise of authority the police must be accountable to the public by providing formal procedures for receiving both commendations and complaints from the public regarding individual officer performance.
- Fully acknowledge the existence of the broad range of administrative and operational discretion that is exercised by all police officers. That acknowledgement should take the form of comprehensive policy statements that publicly establish the limits of discretion, that provides guidelines for its exercise within those limits, and that eliminate discriminatory enforcement of the law.
- Fully acknowledge in written police statements the important role of the news media and the need for the police agency to be open in its relations with the media. The agency should promote an aggressive policy of presenting public information rather than merely responding to local inquiries.
- Immediately develop short and long range goals and objectives to guide agency functions.
- Establish a formal inspection system to provide the police chief executive with the information he needs to evaluate the efficiency and effectiveness of agency operations.
- Adopt geographic policing programs which insure stability of assignment for individual officers who are geographically deployed.
- Make maximum effective use of state statutes permitting police agencies to issue written summonses and citations in lieu of physical arrest.
- Provide for access to police service and response to police emergency situations 24 hours a day.
- Not enforce local ordinances for the sole or primary purpose of raising revenue, and no income arising from enforcement should be earmarked specifically for any single enforcement agency.
- Have plans for the effective command and control of police resources during mass or civil disorders.
- Establish formal training programs in handling unusual occurrence control, administration strategy and tactics.

- Use generalist (patrol officers) wherever possible and not resort to any specialization before all other possibilities are considered.
- Immediately direct patrol officers to conduct thorough preliminary investigations and establish in writing priorities to insure that investigative efforts are spent in a manner that will best achieve organizational goals.
- Assign civilian personnel to positions that do not require the exercise of police authority.
- Consider employment of police reserve officers to supplement the regular force of sworn officers.
- Administer its own recruiting program directed exclusively at attracting the best qualified people with specific attention to the recruitment of college educated applicants.
- Employ a formal process for selection of qualified police recruits to include a written test of mental ability, oral interview, physical exam, psychological exam, and in-depth background investigation.
- Establish immediately a broad classification plan based upon the principle of merit.
- Require, as a condition of employment, a minimum of one year of college; by 1975, 2 years; by 1978, 3 years; by 1982, 4 years of college.
- Develop minimum curriculum requirements for mandatory training for police.
- Require certification as a police officer by the municipal police training commission in the state.
- All recruits (by 1975) complete a minimum of 400 hours of basic police training and a minimum of 4 months of field training with a sworn police employee who has been certified as a training coach.
- Provide a minimum of 40 hours of formal in-service training per year.
- Periodically evaluate the performance of all police employees.
- Assure that only the best qualified persons are promoted to higher positions.

- Establish formal procedure for the administration of internal discipline.
- Implement procedures to facilitate the making of a complaint alleging employee misconduct, whether that complaint is initiated internally or externally.
- Establish physical fitness standards for initial and continuing employment.
- Develop, as a sub-system of its communications system, a telephone communications component designed to reduce crime through rapid and accurate communications with the public.
- Immediately install a 24 hour two-way radio capability providing continuous communications capability between a communications center and field units.
- Assure that delay time from receipt of an emergency call to dispatch of field unit does not exceed two minutes; and six minutes in the case of a non-emergency call.
- Have the capability by 1975 to retrieve statewide criminal information and provide it to field personnel within three minutes for manual systems and 30 seconds for computerized systems.
- Insulate the police department from inappropriate pressures including such pressures from inside the organization.
- Insulate the police department from pressures to deal with matters in an unlawful or unconstitutional manner.
- Insulate the police administrator from inappropriate interference with the internal administration of his department.

These standards are all good and appropriate ones and must be adhered to if an effective police organization is to be created. In our research on standards, we have discovered that the National Park Service has developed activity standards to govern the conduct and operations of its enforcement personnel in recreation and park areas under its control. The primary standards used by this organization are discussed below. In reviewing these standards, it must be remembered that the NPS maintains a full-time, armed, full-police power law enforcement agency. The NPS standards are:

- Visitors and their property are made safe, and peace and public order is maintained and preserved.
- Law enforcement activities are formulated and executed in consonance with the fundamental purpose of the National Park Service.
- Park regulations consistently meet changing needs to assure relevancy.
- Law enforcement officers are familiar with the laws and regulations covering the area to which they are assigned.
- An effective working relationship is maintained with the Solicitors' Office, U.S. Magistrates, U.S. Attorneys; and Federal, state and local law enforcement and investigative agencies.
- Law enforcement problems are analyzed with a view toward seeking solutions other than enforcement actions.
- Inspection systems have been implemented which evaluate the effectiveness, record findings, and make recommendations for improvement of law enforcement activities.
- Investigations are made and appropriate action is taken of all alleged breaches of enforcement integrity, complaints against law enforcement officers, and reports of discontent of law enforcement actions.
- The law enforcement activity uses information and education as a primary means of gaining voluntary compliance with laws, rules and regulations.
- Enforcement actions are exercised with that degree of professionalism which does not impair the quality of the park experience the public rightfully expects.
- Regulation and applicable laws are applied uniformly with regard for the particular circumstances involved in each violation.
- Actions are commensurate with the acts of persons who deliberately, maliciously, or criminally violate the law, or who place the safety of others in jeopardy.
- Pursuit is confined to areas of jurisdiction except for a felonious offense.
- Officers clearly identify themselves when making an arrest or issuing a citation.

- Violations have been clearly identified and explained to the person or persons arrested, cited or warned.
- Persons arrested are properly warned of their constitutional rights to remain silent and to be represented by counsel, and all rights of the accused persons are fully preserved.
- All persons arrested are taken before the appropriate court without unnecessary delay.
- An NPS law enforcement officer knows that he is allowed to use any necessary force, including deadly force, to protect himself or other persons from death or serious injury. In such cases, it is immaterial whether the attacker has committed a serious felony, a misdemeanor or any crime at all.
- Chemical mace and/or batons are used only to capture or subdue dangerous violators of the law, or persons who present a danger to themselves or others.
- Handcuffs are used only on adult felony suspects, or persons who present a danger to themselves, the arresting officer or others.
- Reports are submitted promptly by the officer involved, of the use and the circumstances requiring the use, of defensive equipment (firearms, mace, batons, etc.), and an immediate investigation is made to determine justification of such action.
- Patrols are deployed so as to eliminate or reduce the opportunity for crime and misconduct, to prevent accidents, and to increase the likelihood of apprehending violators.
- Patrols are conducted in a random manner so the patrolmen cannot be expected at a certain place at a certain time.
- Patrols are emphasized in high accident and crime hazard areas.
- A plan is implemented to check the security of physical facilities and equipment.
- Discretion is properly exercised as to the type and amount of force necessary in making and maintaining an arrest.
- Conditions that are conducive to crime, accidents, and misconduct, or which in other ways may be hazardous to the public are reported and remedial action is taken.
- Patrol time is at least equal to the amount of time spent in investigating, reporting, testifying and otherwise providing service to the public.

- Patrolmen respond as quickly and safely as prudence permits when they are dispatched to public assistance calls, with due regard for traffic, weather and road conditions.
- Every known criminal action is investigated to identify, detect, and apprehend the offender, and when applicable, recover stolen property.
- The purpose of accident investigation is to find the causes and circumstances and to determine if enforcement measures or other remedial actions are required.
- Preventing future accidents is the motivating factor in accident investigations.
- Accident reports are prepared and submitted on all accidents.
- Only properly trained and qualified personnel are used for law enforcement purposes.
- Law enforcement officers are instructed and trained in progressive law enforcement procedures and practices to the extent necessary to exercise enforcement authority in accord with service standards.
- No new employees are assigned to law enforcement duties until they successfully complete the NPS Basic Law Enforcement Training Course.
- Present employees assigned to law enforcement duties have completed the NPS Basic Law Enforcement Training Course or equivalent training as approved by the Chief, Division of Law Enforcement, in the Washington Office.
- Every law enforcement officer receives at least 40 hours of in-service law enforcement training each year.
- Every law enforcement supervisor, including those who supervise seasonals, has successfully completed an NPS Supervisory Course, and every law enforcement supervisor receives at least 40 hours of in-service law enforcement training each year.
- Everyone in a law enforcement management position, including superintendents, has successfully completed the NPS Law Enforcement Management Seminar.
- Every law enforcement officer is equipped with an IACP Police Reference Notebook.
- Park areas are capable of receiving requests for law enforcement services, recording the basic data, and promptly dispatching a unit to render service.

- A base station has two-way radio communications with all officers who are on patrol.
- The law enforcement radio system is used for emergency transmissions only when the system will allow radio contact with neighboring police agencies.
- Back-up systems are available in the event the base radio station malfunctions.
- Voice actuated recording devices record all radio transmissions.
- Patrolmen have access to the information in the National Crime Information Center.
- Plans are formulated to handle:
  - The loss of utility service (electric, telephone, etc.).
  - Accidents involving radioactive materials.
  - The removal of bombs or other explosive devices or materials.
  - Natural disasters; i.e., flooding conditions, storms, landslides.
  - The loss of normal water supplies.
  - Disorders that are beyond the capacity of the park staff.
  - Emergency medical care for large numbers of people.
  - Evacuation of the park.
  - Forest, building, or vehicle fires.
  - Visits of the President, foreign heads of state, or other important persons.
- All incidents, whether observed or reported, and whether of a serious or minor nature are promptly recorded on official forms.
- Officers convey to persons who report incidents that they are dealing with an alert, interested, capable and efficient public service organization.
- Reports are factual, accurate, complete, self-explanatory and tell of the action taken, current status of the incident, and anticipated actions, if any.
- The Division of Law Enforcement in the Washington Office keeps abreast of current conditions and issues guidelines and directives as necessary to achieve uniformity of procedures.
- The annual report from each area contains not only statistical data, but a written analysis of the means needed to upgrade law enforcement activities.

- Law enforcement officers project their ability and willingness to serve visitors with integrity, effectiveness, courtesy and diplomacy.
- All incidents requiring the need for law enforcement service are immediately assigned and investigated thoroughly and expeditiously by the unit or office having responsibility for action.
- Visitors are made aware that they have a personal obligation to provide some measure of protection for their property.
- Visitors and park and concession employees give their support in reporting unlawful conduct.
- Park employees and concessionaires have been made aware of methods of strengthening the physical security of their property and buildings.
- A plan has been implemented for the release of all public law enforcement information.
- Each law enforcement officer is able to provide, or direct a visitor to information concerning:
  - Surrounding attractions and points of interest;
  - Main highway routes;
  - Locations of hospitals, churches, gas, food, and lodging accommodations.

The basic intent of the seemingly endless list of both national and NPS law enforcement standards is to demonstrate the point to the Corps of Engineers that the provision of capable, and effective law enforcement services cannot be viewed as either a simple task or as a minor ancillary function of Corps rangers. Such services require unique types of individuals to provide them and an extraordinary amount of administrative and overhead functions (training, equipment, communications, etc.) to support them.

D. Conclusions on the Historical Review of Methods of Establishing Law Enforcement Manpower Requirements and Standards of Service

A variety of methods for analyzing law enforcement manpower requirements have been reviewed. As noted, none can be considered to be truly objective and all suffer from one or another methodological deficiencies.



Similarly, a review was conducted of standards of law enforcement service. Such standards are found to be based primarily on professional judgment and are almost exclusively aimed at full-time police agencies. These standards indicate that full-scale law enforcement activities can best be conducted only by well-trained, well-managed, and well-organized, independent police agencies. They clearly indicate that full-scale law enforcement should not be a part-time function because of the complicated constitutional, ethical, and operational knowledge requirements imposed by the nature of the law enforcement mission.

Given these findings, it is clear that the problem of law enforcement and visitor protection at Corps of Engineers lakes cannot be addressed by use of a simplistic formula approach. The next section will elaborate on the proposed PRC/PMS method of addressing the visitor protection issue and will then develop what we regard as basic standards.

#### E. Proposed Goals for the Corps of Engineers Visitor Protection Program

Earlier in this chapter we stated that a reference point or baseline must be developed in order to determine what is meant by "adequate." Basically, the only sound way of attacking this question is to establish goals that describe a set of desirable conditions that must be attained before visitor protection can be considered acceptable or adequate. At this point, it is necessary to introduce the concept of a visitor protection program. In this context the term "program" refers to all activity or group of activities undertaken by Government to provide a service to the public. The Visitor Protection Program at Corps of Engineers lakes is not, at this time, defined in specific programmatic terms. Instead, it consists of a wide array of activities performed by Corps employees and other federal, state and local agencies that as an aggregate constitute "visitor protection" at such lakes.

Before proceeding with this line of thought, it will be useful here to illustrate what we mean by goal statements. Goals can be developed in a variety of ways but in the main they are based on political and

moral values. For example, one municipality (Harrisburg, Pennsylvania) has established a set of goals to describe just what they expect in terms of police protection. These goals are presented below:

1. Harrisburg residents should be able to expect an adequate patrol of the residential areas as well as the business community, either by patrolmen walking the beat, by motor patrol, or otherwise.
2. They should be able to feel secure in their homes and businesses knowing that police protection is available on the shortest possible notice, 24 hours-a-day, through the use of the most modern communications equipment available.
3. They should feel that their children going to and from school are protected by a police presence which, in many instances, is supplied by school crossing guards.
4. They should be able to attend evening meetings or activities or shop in the evenings with the assurance that police patrols are in full operation, especially after dark and between the hours of 7 p.m. and 11 p.m.
5. They should be made to feel secure that if a crime is committed, the police department, through its members, has sufficient training and equipment to apprehend the guilty person and assist in the prosecution.
6. They should know that in the event of an emergency that trained police in sufficient numbers are available to protect them.
7. They should know that there are persons in the police department who have had adequate training in riot control and are otherwise able to handle civil disturbances.
8. They should feel that adequate and accurate records are maintained as to crime statistics so that an adequate assessment can be made of the crime situation in the community.
9. Citizens should have the right to all of these services on a 24 hours-a-day, 365 days-a-year basis.

Once these goal statements are established, the next step is to define precise and measureable objectives. To illustrate, goal statement number 2 requires the police agency to provide protection at the "shortest possible notice." A police agency could then set an objective that reads as follows:

The Police Department will maintain a force level of sufficient strength to allow at least one patrol car to respond to all serious calls within five minutes of police notification in at least 95 percent of all such calls for service received by the agency. In no event shall response time to any serious call exceed 15 minutes.

Given this objective, the department would then identify all system components essential to achieve the objective. For example, the departmental radio communications system must be analyzed to determine what procedures must be instituted to (1) identify "serious" calls; (2) eliminate delay time in dispatching an officer; and (3) documenting this process to facilitate later analysis of how successful the agency is in achieving the objective. Similarly, the Patrol Division must review its allocation, distribution, and deployment of manpower to assure that an appropriate number of officers are available to meet the objective. In turn, each component of the department will be analyzed to determine its contribution to this objective. Finally, all activities and resources devoted to this objective will be aggregated into a "program." The cost of these program activities will then be determined and judgments can be made as to the cost/effectiveness of police performance in satisfying the objective.

The standards must be tailored to apply to diverse and individual locales. Depending on the nature of its jurisdiction and available resources, another police agency, a rural one, for example, might set the quantitative standard in its objective statement at 15 minutes response time in 85 percent of all serious calls received by the agency.

This type of objective standard provides the public as well as legislative and executive bodies with the information needed to determine what they are paying for in terms of police service and whether additional expenses are required to enable the agency to attain the established standards.

As noted, these types of goal statements provide a reference point against which the adequacy of visitor protection can be determined. However, in any formulation of this type it must be clearly understood that value judgments must be made. There is no totally objective "formula" being utilized by any police agency in the nation for determining exactly how many officers are necessary to "adequately" police a jurisdiction.

Another relevant question in determining "adequacy" of visitor protection concerns the nature of the causal relationship between program activities and the effects. For example, most police agencies in evaluating the effectiveness of their activities divide crime into "suppressable" and "non-suppressable" criminal events. More specifically, a purse snatch occurring on a lighted street would be considered a suppressable crime. A domestic homicide, occurring in a private dwelling place, on the other hand, would be considered non-suppressable. A similar situation would prevail in the utilization of police officers to control criminal or other unauthorized activity at Corps of Engineers recreation lakes. Obviously, certain events are beyond the capability of any police force to prevent at such lakes. Thus, in addition to reliance on a police capability to provide visitor protection, it is also necessary to consider other means to provide such protection. For example, design of developed areas and the projects could incorporate considerations of "defensible space," communications devices for public use, closing off of unused access roads, physical security devices to prevent vandalism, crime prevention programs in schools near the project, and so forth.

Another issue requiring serious consideration relates to the question of appropriate jurisdiction of law enforcement agencies in and around Corps of Engineer lakes. For example, at some specific lakes as many as ten municipal and county police agencies may provide some form of service, including State Police and Highway Patrols, Fish and Game Enforcement Agencies, Boating Law Enforcement Agencies, the Federal Bureau of Investigation, Corps Rangers, and others in the provision of protective services. As can be expected, this jurisdictional omnium-gatherum degrades the quality of service.

With these thoughts in mind, the basic approach to the determination of visitor protection requirements will be as follows. The first step will involve the development of appropriate goals for visitor protection. Next, for each goal statement, it is necessary to define specific objectives or specific activity-oriented statements. Then each objective will be analyzed to determine the range of alternatives available to achieve it. The advantages and disadvantages of each alternative will be discussed in a later section to determine their feasibility in terms of cost, perceived effectiveness, and ease of implementation.

It is important to note that the goal statements are visitor-oriented and focus on output. Far too often, such goal statements concentrate on the input end of the resource allocation process in managing a program, such as, number of parks or recreational facilities maintained, tons of garbage collected by area, etc.

The goal statements that follow are based on a review of relevant literature, Corps of Engineers policy statements, interviews with over 200 federal, state and local officials and professional judgment of the recreation and law enforcement specialists assigned to this study.

The first-level goal is formulated to define the basic purpose of Corps of Engineers involvement in recreation and resource management.

The goal of the Corps of Engineers recreation program is to increase the Corps capability to plan, develop and manage the natural resources available at its lakes for optimum and diverse public recreation opportunity for present and future generations. Public safety, personal security and environmental protection are fundamental to people achieving a fulfilling recreation experience while visiting a Corps lake.

Next, with specific attention to the visitor protection program at Corps of Engineers lakes, the following goals, which are not in priority order, are established:

**GOAL 1: VISITOR ASSISTANCE**

Visitors to Corps of Engineers lakes should be assured that the primary mission of law enforcement personnel at the project is to protect and serve recreation users and to assist the public in enjoying their stay at the lake.

**GOAL 2: ENVIRONMENTAL PROTECTION**

Visitors to Corps of Engineers lakes should be assured that officers with appropriate law enforcement authority are available to protect, maintain, and preserve the highest standards of environmental quality and attractiveness of the lake.

**GOAL 3: PATROL**

Visitors to Corps of Engineers lakes should be assured that all areas of the lake are patrolled by officers with law enforcement authority on a regular and continuing basis.

**GOAL 4: AUTHORITY AND MANPOWER**

Visitors to Corps of Engineers lakes should be assured that if a crime is committed, officers with law enforcement authority will be available and have the capability to apprehend the guilty party and present the individual(s) for adjudication to the appropriate judicial authority.

**GOAL 5: COMMUNICATIONS**

Visitors to Corps of Engineers lakes should be assured that communication devices are available throughout the lake to enable them to report emergencies and other situations requiring law enforcement services without undue delay or difficulty.

**GOAL 6: COORDINATION**

Visitors to Corps of Engineers lakes should be assured that law enforcement authorities at the lake have developed and maintain effective working relationships with the U.S. magistrates, U.S. courts, U.S. attorneys and all applicable federal, state and local law enforcement and criminal justice agencies.

**GOAL 7: RECORDS**

Visitors to Corps of Engineers lakes should be assured that adequate and accurate records are maintained on all situations related to law enforcement needs and problems at the lakes so that Corps decision-makers can make informed assessments and plans for visitor protection at the lakes.

**GOAL 8: PLANNING**

Visitors to Corps of Engineers lakes should be assured that all Corps lakes with a recreation component in the planning stage will be developed so as to: 1) enhance the personal safety of visitors; 2) facilitate safety of visitors; and, 3) facilitate the effective provision of law enforcement and visitor protection services. Master plans for Corps lakes and recreation areas should have a law enforcement and visitor protection component.

The above, then, are the goals for the Corps of Engineers Visitor Protection Program. The following statement of Basic Policy is needed, in addition, to govern the interpretation of these goals.

Basic Policy:

While safety from hazards, personal security and freedom from disturbance is fundamental to a satisfying recreation experience, overt law enforcement practices of control, search, seizure and arrest are antithetical to the recreation experience. Thus, the delivery of visitor protection and law enforcement services will be based upon an understanding of the nature of the recreation experience. A humanistic approach will be made in correcting improper behavior that is harmful to the individual, other recreationists, or to the environment. By the same token, law enforcement measures must be quickly and forcefully applied to quell more intensive infractions or disturbances that infringe upon the recreation experiences of others and damage facilities or the environment.

F. Goals Implementation

According to the previous partitioning of lakes into class categories, the above goals have been translated into visitor protection services relating to specific needs. More specifically, class A lakes will require the highest level of "people" and resource-oriented visitor protection; class B lakes will require a lower level of "people-oriented" protective services and a higher order of facility and resource protection; class C lakes are being run primarily by state, local, or other federal agencies and will require the Corps to make appropriate agreements with such agencies to assure that visitor protection services are available; and class D lakes, while under Corps control, will primarily require facility protection. In the discussion that follows, specific objectives will be formulated for each project classification.

As noted previously, goal statements are formulated in general terms. The next step is to translate each goal statement into a measurable objective to be achieved in a defined time period. Each goal and its appropriate objective(s) are discussed below.

GOAL 1: VISITOR ASSISTANCE --Visitors to Corps of Engineers lakes should be assured that the primary mission of law enforcement personnel at the lake is to protect and serve recreation users and to assist the public in enjoying their stay at the lake.

Discussion. It cannot be emphasized too strongly that recreation is the primary aim of visitors to Corps lakes. Visitor protection services are simply an adjunct but necessary function to be performed to enable visitors to enjoy their stay as much as possible. This orientation requires enforcement personnel to be effective but unobtrusive. Enforcement policy should be heavily weighted to community relations and personnel should be encouraged to utilize their discretionary authority to the fullest on the side of leniency. This does not mean that laws and regulations should be ignored. It does mean that the aim of enforcement personnel should be focused on inducing voluntary compliance by the public with relevant laws, rules and regulations. The basic enforcement policy should stress prevention, as opposed to control and apprehension. Of course, there will always be some individuals who are out to commit serious crimes, harass and disturb other users unnecessarily, destroy project resources, and vandalize property. The only way to deal with such individuals is to provide firm, fair and intensive enforcement pressure.

Objective 1-1: Enforcement personnel at Corps of Engineers lakes should be sufficiently aware of the availability of all facilities and procedures at the project and should be able to provide this and other types of appropriate information to the public when requested.

Standards of Service: The only way to measure the performance of this objective is through randomized surveys of recreation users. Such surveys should ascertain the number of users requesting information and their degree of satisfaction with such service.

Objective 1-2: All personnel with enforcement authority at Corps of Engineer class A and B lakes should be trained in human relations and recreation as well as on the nature and scope of lake resources.



Standards of Service:

- Same as standard of service relating to Objective 1-1;
- Same survey of individuals arrested, cited, or warned by enforcement personnel; and
- Follow-up evaluation of calls for law enforcement/visitor protection services with persons requesting such service.

• GOAL 2: ENVIRONMENTAL PROTECTION--Visitors to Corps of Engineers lakes should be assured that officers with appropriate law enforcement authority are available to protect, maintain, and preserve the highest standards of environmental quality and attractiveness of the lake.

Discussion. While continued maintenance of project resources, wildlife management, and design criteria, all contribute to assuring the environmental quality of the project, it is all too clear that enforcement of resource and wildlife protection laws and regulations must accompany more passive measures. More specifically, a wide range of resource-damaging activities are occurring at Corps projects including: (1) camping in unauthorized places; (2) use of off-road vehicles that cause destruction of flora and erosion; (3) littering; (4) tree cutting; (5) out-of-season fishing or hunting or use of illegal methods; (6) unattended or careless fires; and (7) parking in unauthorized areas. While this type of enforcement activity is performed ably by existing ranger personnel with citation authority, it is also necessary that any enforcement officer providing extensive patrol services at a Corps lake should have the necessary authority and knowledge to deal with such violations. Closely related to this enforcement goal is the need to develop a viable environmental protection/prevention program for lake users. Ranger personnel are particularly well-equipped to manage this prevention function.

Objective 2-1. Ranger personnel should continue to be responsible for environmental protection at Corps lakes. However, it will be necessary to significantly increase the existing use of Title 36 enforcement.

Standards of Service:

- Significantly increase the number of Corps rangers possessing citation authority;
- Significantly increase the number of citation training programs so that all personnel with citation authority have completed a minimum of 50 hours of such training; and
- Significantly increase the issuance of citations and written warnings by a factor of at least two.

Objective 2-2: The Corps should significantly increase its environmental and resource protection public education program particularly in local school systems in close proximity to Corps lakes.

Standards of Service:

- Increase number of special presentations by ranger personnel in schools;
- Increase number of newspaper articles explaining Corps resource protection programs.
- Increase number of public educational presentations to civic and other community groups.

GOAL 3: PATROL--Visitors to Corps of Engineers lakes should be assured that all areas of the lake are pat olled by officers with law enforcement authority on a regular and continuing basis.

Discussion. The intent of this goal statement is to establish that regular and continuing patrol of a lake is necessary. At the present time during normal work hours, Corps personnel with citation authority will, in the course of their duties inspect most areas of a lake on a daily basis. There is some patrol after normal working hours at some lakes; however, our field visits have convinced us that these patrols are not as intensive as required.

Objective 3-1: Class A Corps of Engineer recreation-resource lakes will require a minimum of 16 hours per day of law enforcement patrol

coverage during periods of peak usage. Ranger personnel will supplement these services and provide patrol services during off-peak periods of usage.

Objective 3-2: Class B Corps of Engineer recreation-resource lakes will require a minimum of eight hours per day of law enforcement patrol coverage during periods of peak usage. Ranger personnel will supplement these services and provide patrol services during off-peak periods of usage.

Objective 3-3: Class C lakes will require that the Corps negotiate appropriate written agreements with agencies operating outgranted areas to provide visitor protection services. As a minimum, such agreements should provide for visitor protection services at least equal to those provided by the Corps at similar Corps-operated areas.

Objective 3-4: Class D lakes will require facility and resource protection by Corps or security personnel on a 24-hour-a-day basis. No regular patrol services will be required at these projects.

Standards of Service Relating to Objectives 1-4:

- Class A lakes: All Corps developed areas of such lakes will be inspected at least four times per twenty-four hour day by law enforcement officers. All portions of the lake will be inspected at least twice per twenty-four hour day.
- Class B lakes: All Corps developed areas will be inspected at least twice per twenty-four day by law enforcement officers. All portions of the lake will be inspected at least once per twenty-four hour day.
- Class C lakes: Either the Class A or Class B standards of patrol service will be applicable to outgranted projects depending on the characteristics.
- Class D lakes: Twenty-four hour security protection of facilities required. Normal Corps activities sufficient for visitor and resource protection, providing, however, that each Class D project have at least one Corps personnel with citation authority.

GOAL 4: AUTHORITY AND MANPOWER:--Visitors to Corps of Engineers lakes should be assured that if a crime is committed, officers with law enforcement authority will be available, and have the capability to apprehend the guilty party and present the individual(s) for adjudication to the appropriate judicial authority.

Discussion. Based on our field visits and questionnaire analysis, it is our judgment that the Corps should not develop an internal investigative capability. Existing federal agencies, such as, the Federal Bureau of Investigation, the Provost Marshal, the Drug Enforcement Administration provide high quality investigative services the Corps can draw upon when serious federal offenses occur. In addition, due to the Corps proprietorial management of project lands, state and county police organizations will generally provide investigative services related to state law violations when requested.

The Corps primary need is for individuals who can perform professional preliminary crime and accident investigations similar to those performed by capable patrol officers in state, county, and local organizations. In addition, those rangers with citation authority who have received training should be able to handle investigations related to Title 36 violations. However, in those areas of the nation where local law enforcement is undermanned, it may be necessary to provide for some form of contract investigative services from duly-constituted law enforcement agencies. The objectives specified below address these issues.

Objective 4-1: Officers with law enforcement authority at all class A and B Corps lakes, who provide patrol services, should be competent and trained to perform professionally acceptable preliminary investigations of reported crime, accidents, and traffic crashes.

Standards of Service: All preliminary investigations by law enforcement personnel at Corps class A and B lakes should be judged acceptable for follow-up investigative purposes by whatever agency provides such services. No court cases should be lost because of inadequate preliminary investigations.

Objective 4-2: The Corps of Engineers should develop appropriate written agreements with all federal, state, and local agencies whose jurisdiction encompasses Corps projects regarding the nature and scope of investigative services to be provided.

Standards of Service:

- Existence of written agreements;
- Clearance rates for reported crimes at Corps lakes where external agencies conduct follow-up investigations;
- Existence of supplementary reports detailing the steps taken by agencies providing investigative services at Corps lakes.

Goal 5: COMMUNICATIONS-- Visitors to Corps of Engineers lakes should be assured that communication devices are available throughout the lake to enable them to report emergencies and other situations requiring law enforcement services without undue delay or difficulty.

Discussion. Our site visits have convinced us that virtually none of the Corps recreation areas maintain adequate or, in some cases, any communications devices that would enable a visitor in either remote or attended areas to report an emergency situation without extensive delays. There are problems in implementing these objectives. One difficulty may be in developing a device that could stand up to vandalism, rough usage, or similar problems. In some park systems, telephone companies have installed pay phones, only to find out they are (1) not economically feasible or (2) broken into by thieves or destroyed by vandals. Nonetheless, visitor protection services are useless if they cannot be delivered at those times and places when they are needed. This is both a technical and operational problem that may require some form of subsidy to telephone companies, or the development of innovative, effective, and vandal proof communications devices for the public. Later sections of this report address this question in detail, but the objective set forth below is the operative statement on this problem.

Objective 5-1: All developed Corps recreation areas of class A and B Corps lakes should have a minimum of one device to enable the public to request law enforcement or other emergency devices.

Standards of Service:

- No visitor to any developed recreation area at Corps lakes should have to spend more than ten minutes looking for and utilizing a communications device to obtain law enforcement or other emergency service.

Objective 5-2: The Corps of Engineers should negotiate written agreements with all state, local and federal agencies operating developed recreation areas at Corps lakes to assure that such agencies provide communications devices at their areas.

Standards of Service:

- Same as Objective 5-1.

GOAL 6: COORDINATION--Visitors to Corps of Engineers lakes should be assured that law enforcement authorities at the lake have developed and maintain effective working relationships with U.S. magistrates, U.S. courts, U.S. attorneys and all applicable federal, state and local law enforcement and criminal justice agencies.

Discussion. This is an extremely important goal to assure the development of an effective law enforcement and visitor protection program. Our site visits to Corps lakes revealed a wide diversity of interagency relations ranging from excellent at some sites to complete disunity at a number of others. In these locations where Corps-other criminal justice agency relationships were considered to be less than acceptable, the following issues were present: 1) confusion of jurisdictional authority and geographical boundaries, 2) inadequate provision of services, notably follow-up investigations to the lake by local agencies; 3) poor cooperation from U.S. magistrates with respect to the citation program; and 4) inadequate communication of Corps requirements for investigative services to appropriate federal enforcement agencies. The reasons these issues exist are many and complex but basically boil down to these:

- Lack of financial and other resources in local law enforcement agencies to enable them to provide adequate police services at Corps lakes.
- Lack of political importance of Corps lakes to county sheriffs. Generally, the sheriff will concentrate his available resources in areas where permanent residents (who elected him) live, to provide the type of visibility and service levels necessary to maintain the electoral support of such constituents.
- Emphasis on traffic enforcement by certain state enforcement agencies instead of emphasis on crime and public order control.
- Inadequate communication of Corps needs in terms of the citation program and visitor protection services. Occasional misunderstanding that the Corps has its own police operation.

These are all serious issues, only some of which can be resolved by improved communication processes. The other issues, such as lack of political importance, or lack of resources, cannot be resolved in a simplistic manner.

In brief, the Corps lacks the political "muscle" particularly at the county level to obtain the required police and court resources necessary to upgrade visitor protection services. In these instances, it will be essential that the Corps provide some form of subsidy to county or state law enforcement agencies to obtain a higher level of service. The objectives presented below address both issues.

Objective 6-1: Each Corps lake manager should prepare a detailed descriptive document outlining pertinent facts about the recreation project (e.g., number of visitors, map showing boundary lines, facility descriptions, etc.) and identifying specific law enforcement needs. This document should be submitted to each and every criminal justice agency with jurisdiction at the lake. The lake manager should meet with each agency to determine exactly what services can or cannot be provided. A written report should then be prepared outlining exactly what needs can be met by such agencies; what needs cannot be met; and what problems exist.

(Appropriate implications of this report should be considered in the preparation of the annual law enforcement plan for the lake as described under Goal 8.)

Standards of Service: Existence of authorization, appropriated funds, policy, procedures, and control mechanisms to enable the Corps to purchase services or subsidize duly-constituted law enforcement agencies to provide the needed services identified under Objective 6-1.

Objective 6-2: Corps lake managers will develop effective working relationships with U.S. magistrates and other judicial authorities having jurisdiction over incidents occurring at Corps recreation lakes.

Standards of Service: Judicial acceptance of jurisdiction on citation and other actions taken by Corps personnel.

GOAL 7: RECORDS--Visitors to Corps of Engineers lakes should be assured that adequate and accurate records are maintained on all situations related to law enforcement needs and problems at the lake so that Corps decision-makers can make informed assessments and plans for visitor protection at the lake.

Discussion. The Corps of Engineers maintains an incident reporting system at all its lakes that is intended to identify criminal and other unusual incidents occurring at each lake. This data is computerized and can be aggregated in a wide variety of formats. Data is also compiled on warnings and citations issued by rangers. The system itself is designed well but it has some major flaws at the present time that render it virtually useless for planning, analysis, and decisionmaking purposes. These flaws are as follows:

- At those lakes where multiple law enforcement agencies provide service, the Corps incident reporting system does not, as a general rule, pick-up crimes reported to such agencies or arrests made by such agencies.
- There is a good deal of under-reporting of vandalism and other minor offenses at Corps lakes.



- At those lakes where some developed areas are maintained by the Corps and some by other state, local or federal agencies, the Corps incident reporting system, as a general rule, will not pick up offenses occurring or arrests made in outgranted areas.
- Citizens victimized or otherwise harassed at Corps lakes are somewhat reluctant to report crimes for a wide variety of reasons.

All of these situations have been verified during our field visits to Corps lakes. This leads us to the conclusion that the existing incident reporting system will require some modifications to make it a useful tool for decision-making. This is discussed in further detail in Chapter 14. Additionally, at no time in this study were we made aware that any systematic planning for visitor protection is undertaken by the Corps. These findings lead to the objectives that follow.

Objective 7-1: Each Corps lake manager should establish systems and procedures to obtain reports of crimes, arrests, or other unique incidents occurring at the lake from all law enforcement agencies providing such services at the lake. The lake manager should incorporate such incidents into his reports to higher Corps levels.

Standards of Service: Existence of a plan and agreements for obtaining the required data from law enforcement agencies. This data should be obtained at least once per month.

Objective 7-2: A system of annual sample surveys should be implemented at class A and B lakes to maintain a current evaluation of user experience and victimization at the lake. As a minimum, this survey should determine: (1) user opinions about the level and quality of visitor protection services at the lake; (2) any criminal victimization of lake users; and, (3) user suggestions for improving safety conditions at the lake.

Standards of Service: Existence of a written report on the sample opinion survey on visitor protection. This survey must be conducted at least once a year.

GOAL 3: PLANNING--Visitors to Corps of Engineers lakes should be assured that all Corps lakes with a recreation component in the planning stage as well as all future projects will be developed so as to: 1) enhance the personal safety of visitors; 2) facilitate safety of visitors; and, 3) facilitate the effective provision of law enforcement and visitor protection services. Master plans for Corps lakes and recreation areas should have a law enforcement and visitor protection component.

Discussion. Our site visits and analysis of data provided by Corps lake managers have convinced us that many Corps lakes having a recreation component were designed and developed without appropriate consideration of either the personal safety of lake users or the needs of law enforcement delivery agencies. This is not particularly surprising since such basic concepts as "defensible space" or environmental security were not fully developed at the time such projects were constructed. Also, it was a rare planner who recognized that law enforcement needs should be considered in project planning and design. Essentially such considerations represent a preventive approach to visitor protection and law enforcement problems.

There are measures for providing enhanced visitor protection and facilitating law enforcement which can be reflected in the layout and management of a Corps recreation area. Master plans for new recreation areas should contain a law enforcement and visitor protection component. Similarly, annual or long-range plans for the upgrading or expansion of existing recreation areas should also give special attention to park practices and law enforcement measures which will provide improved protection to visitors and project resources. More specifically, a law enforcement and visitor protection planning function plan should be established either within or otherwise responsible to the Corps of Engineers. The scope of planning should include longer range policy and program planning at the Office of the Chief of Engineers, through more focused planning, design

and coordination efforts at the Division and District levels. An annual law enforcement and visitor protection plan should be prepared by each lake manager.

In brief, there is a lot that can be done in the design stages of a lake that can contribute much to the prevention of future problems. However, it is first necessary to determine the exact nature of such prevention design efforts, cost, and potential effectiveness. The objectives below address these needs.

Objective 8-1: The Corps should establish a position for a professional enforcement specialist at the Division level to assist in the planning and design of recreation areas and to coordinate law enforcement and visitor protection planning and services of the Districts within the Division.

Standards of Service: Establishment of the position and implementation of a planning review process prior to January 1975.

Objective 8-2: The Corps should institute mandatory inclusion of law enforcement and visitor protection design concepts in planning efforts for lakes with recreation components. Each Corps Class A and B lake manager should prepare, or cause to be prepared, an annual law enforcement and visitor protection plan. The plan should be based on quantitative and accurate data and should address specific objectives to be addressed and achieved during the planning period.

Standards of Service:

- Existence of an Engineering Regulation or Law Enforcement and Visitor Protection prepared by the Office of the Chief of Engineers, including appropriate amendments to existing ER's pertaining to recreation planning, design and management;
- Existence of law enforcement and visitor protection policy and management plans at Division and District offices;

- Existence of detailed visitor protection plans for class A and B lakes.

Objective 8-3: The Corps of Engineers should conduct, or cause to be conducted, a detailed study to identify specific environmental designs and management practices that serve to minimize or eliminate existing visitor protection and law enforcement problems at Corps recreation lakes.

Standards of Service: Completion of a study to satisfy Objective 8-3 prior to June 1975.

G. Summary

These standards and goals have been designed to assist the Corps of Engineers in future decisionmaking and evaluation. The inclusion of these standards and goals into policy and programmatic action is the first step to implementation of a law enforcement program at Corps lakes. Chapter 11 of the report will discuss various alternative courses of action for the Corps to pursue in administering the services necessary to effectuate the standards and goals formulated in this chapter.

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CHAPTER 9  
IMPROVEMENTS IN MANPOWER LEVELS

A. Introduction

This chapter of the report will address one method of improving visitor protection at the lakes--additional manpower. This recommendation is felt to be the minimum effort the Corps should extend to improve the recreation experience at their lakes. Other improvements such as organizational changes, management emphasis, and increased planning and coordination are very important to providing an improved total system delivery capability, but the actual field operation is the first and most essential step at this stage. Other measures for improvement will be discussed in the final chapters.

This discussion will be divided into two parts. The first discussion will specify the level of sworn law enforcement officers with full police power needed to cope with serious misdemeanors, felonies, and emergency situations, irrespective of what agency provides the service. The second discussion will be addressed specifically to the level of Corps rangers needed to deal with general resources and visitor management.

B. Required Level of Peace Officers

It is apparent, based on the findings from the field trips and questionnaires, that while state and local law enforcement is spending a great deal of time and effort at Corps lakes, services are still only accessible on an emergency basis at the majority of the lakes. There is little actual on-site surveillance and preventive patrol except at the largely attended, urban lakes. As Table 7-3 in Chapter 7 revealed, 50

percent of the total local law enforcement expenditures were spent at these lakes, which only account for one-fourth of the A lakes, not to mention the B lakes. Thus at some of the smaller, rural lakes, due to the limited local resources, the Corps rangers are the only noticeable visitor protection measure, and some of these are temporary rangers.

Consequently, emphasis has been centered on the lakes which access the greatest amount of visitors to the detriment of the smaller, less attended lakes. While this logic is obviously sound, it is not sufficient. That is to say that emphasis must be placed at all the lakes, with the largely attended still receiving priority.

The level of peace officers necessary to provide visitor protection at the Corps lakes is the number of peace officers necessary to effectively fulfill the operational requirements included in the standards for service established from the Corps of Engineers goals for a visitor protection program discussed in Chapter 8.

The operational requirements serve as a basis for general service and may be tailored to specific lakes to fit topography, water level, or other unique characteristics. For example, at some of the smaller lakes, five minutes response time might be more rational than a standard 15 minutes, or eight inspections per developed area may be necessary because there are only one or two developed areas. Thus, the present calculations for manpower have been based on a general or universal assessment and the levels established are minimum levels for service, thus leaving room for improvement at specific lakes.

Table 9-1 indicates the hours of service required at the lakes from well-trained, law enforcement officers with complete peace officer authority to enforce all state laws. To explain the figures, the table has been divided into the summer season and the rest of the year. The study team found that during the off-season attendance and accompanying crime and vandalism decreased appreciably. Thus, the police service has



TABLE 9-1  
PATROL SERVICE REQUIRED AT CORPS LAKES  
BY SWORN PEACE OFFICERS

| Class of Lake                                         | Patrol on Weekdays during<br>the summer season<br>87 days | Patrol on weekends and<br>Holidays during the<br>summer season 33 days | Patrol the<br>rest of the<br>Year | Total<br>Services<br>Needed | Total for<br>all lakes<br>in the Class |
|-------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------|-----------------------------|----------------------------------------|
| Urban A lakes with<br>attendance over one<br>million  | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 24 hours of two-man<br>patrol<br>Total: 1584 hours                     | Calls for<br>Service<br>Basis     | 2976 hrs.                   | 95,232 hrs.                            |
| Rural A lakes with<br>attendance over<br>one million  | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 24 hours of two-man<br>patrol<br>Total: 1584 hours                     | Calls for<br>Service<br>Basis     | 2976 hrs.                   | 116,064 hrs.                           |
| Urban A lakes with<br>attendance under<br>one million | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 20 hours of one-man<br>patrol<br>Total: 660 hours                      | Calls for<br>Service<br>Basis     | 2052 hrs.                   | 22,572 hrs.                            |
| Rural A lakes with<br>attendance under<br>one million | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 16 hours of one-man<br>patrol<br>Total: 528                            | Calls for<br>Service<br>Basis     | 1920 hrs.                   | 72,960 hrs.                            |
| B lakes                                               | 8 hours of one-man<br>patrol<br>Total: 696 hours          | 12 hours of one-man<br>patrol<br>Total: 396 hours                      | Calls for<br>Service<br>Basis     | 1092 hrs.                   | 90,636 hrs.                            |
| TOTAL SERVICE FOR ALL LAKES: 418,344 hours *          |                                                           |                                                                        |                                   |                             |                                        |

(Source: PRC/PMS)

\*includes 20,880 hours for unclassified lakes.

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to be weighted to reflect this decrease in activity so as not to over-enforce unnecessarily.

All patrols are one-man, one-car, except for weekend and holiday service at the lakes with attendance over one million. It was found that the existence of the problem, as previously described, at these lakes warranted two-man, two-car patrols during the weekends and holidays. The probability of having one patrol tied up on calls for service is far greater at these lakes on weekends and holidays than at any of the other lakes. Thus, if one patrol is continually answering calls for service, the other can continue surveillance.

In addition to the summer season, the access to peace officers at the lakes should be insured on a "calls for service" basis during the off-season. It may be necessary to pay expenses during this period. Converting the total of hours of service needed by law enforcement is difficult because some agencies may work more than an eight-hour day. Additionally, it may be possible for one patrol car to patrol more than one lake. The close proximity of many of the B lakes in the New England Division makes this possible in this area of the country.

Nonetheless, it is possible to calculate that providing 306,828 hours of service at all Corps A lakes will take the equivalent of four officers for largely attended lakes, including days off and sick time, and three officers at the lesser attended lakes for the summer season. This would bring the total officers needed at A lakes to 522. The B lakes would take the equivalent of more than two officers per lake. Assuming that patrol cars "double-up" at at least 25 percent of the B lakes, this brings the total to 62 that would need patrol officers. Based on these calculations, the Corps of Engineers would need the equivalent of 584 peace officers to patrol these lakes within the purview of the visitor protection standards.

This section has not addressed the required level of service needed to patrol the water surface. As concluded in Chapter 6, this service is

currently felt to be sufficient especially considering the minimal cost to the Corps of Engineers budget.

C. Required Level of Corps of Engineers Rangers

The consensus of the findings is that the Corps lakes are significantly undermanned. Ranger management responsibilities will be substantially increased as recreation gains priority with the public. In addition, the amount of visitors continues to increase. An immediate increase in Corps rangers before the next season is absolutely warranted.

The difficulty lies not in assessing that a problem exists, but in deciding to what lengths one should go to solve the problem. More specifically, how many rangers are needed to effectively promote the visitor protection standards. This standard involves the protection, maintenance, and preservation of resources by expanded use of the Title 36 program. Additionally, more rangers are necessary to supervise the temporary employees; screen out and handle minor calls for service so as not to tie up the peace officers; and be available to assist recreation users at all hours of the day. Thus, additional professional rangers are needed to provide this coverage.

There are several methods of calculating the number of additional rangers needed at the lakes. First, a minimum level should be established as a base. Considering the increased recreation usage being received at the Corps lakes and the level of development at the A lakes, it is imperative that a professional, permanent ranger or equivalent be available for maximum service on a continual basis during the season. It is important to have the permanent, trained rangers who can provide supervision for the seasonal temporaries.

Alternative Y--Minimum Improvement

The following Table 9-2 displays a possible staffing allocation which receives maximum coverage from 4 permanent rangers. The important feature is the overlap of two rangers between the hours of 7 p.m.-12 p.m.

TABLE 9-2

STAFFING PLAN FOR 4 PERMANENT RANGERS (A, B, C, D)  
5-DAY/40-HOUR WEEK

|                  | Sun | Mon              | Tues | Wed | Thur | Fri | Sat |
|------------------|-----|------------------|------|-----|------|-----|-----|
| 7 a.m. - 3 p.m.  | B   | MGR <sup>1</sup> | A    | A   | A    | A   | A   |
| 4 p.m. - 12 p.m. | C   | B                | B    | C   | C    | C   | C   |
| 7 p.m. - 3 a.m.  | D   | D                | D    | B   | B    | D   | D   |

(Source: PRC/PMS)

<sup>1</sup>The only period left unattended by rangers can be covered by the manager.

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when, as the self-report questionnaires revealed, most problems occur. The hours from 3 a.m. to a.m., when the fewest problems occur, can be handled by experienced seasonal temporaries. Additional use of temporaries will be discussed in the discussion on training.

One of the major problems that the study team found was the poor allocation of permanent rangers across each shift. As Table 9-3 reveals, at the A lakes over 70 percent of the permanent ranger force worked the day shift, while 50 percent of the seasonal employees worked the evening and midnight shift with minimal assistance and supervision. Following the staffing plan in Table 9-2 would eliminate this problem.

The number of rangers needed to provide this coverage is expressed in Table 9-4. As this table reveals, 212 additional rangers are needed at a minimum at the A lakes. However, it is possible to reduce the number needed by reallocating the present ranger force. This would involve taking rangers away from lakes with more than four rangers. This is not advisable since these lakes appear to need the services of every single ranger. Thus, it is not as though these lakes were "overstaffed." They are not. Additionally, the number of rangers saved by reallocation is minimal, as the table reveals.

Coverage at the B lakes presents a different picture. All B lakes are minimally developed and the average attendance at these lakes is 72 percent less than the A lakes. But even more significant is the fact that over 69 percent of the B lakes are primarily for day use activities. Based on these facts, it is recommended as a minimum, that each B lake should have the services of permanent, trained rangers. As previously mentioned, if it is possible that 25 percent of these closely approximated lakes can receive attention from rangers doubling up their responsibilities, this would mean that 55 rangers would have to be added to the B lakes.

In conclusion, the addition of 278 permanent rangers are needed, as a minimum, to faithfully provide the standards established in Chapter 8.

TABLE 9-3  
PERSONNEL ALLOCATIONS OF CORPS RANDERS  
BY SHIFT AT THE LAKES

| CLASS OF LAKE                   | DAY<br>SHIFT | EVENING<br>SHIFT | MIDNIGHT TO<br>MORNING SHIFT |
|---------------------------------|--------------|------------------|------------------------------|
| PERMANENT RANGERS<br>"A" LAKES  | 70%          | 26%              | 4%                           |
| SEASONAL EMPLOYEES<br>"A" LAKES | 50%          | 27%              | 23%                          |
| PERMANENT RANGERS<br>"B" LAKES  | 84%          | 11%              | 4%                           |
| SEASONAL EMPLOYEES<br>"B" LAKES | 86%          | 12%              | 2%                           |

(Source: PRC/PMS)

TABLE 9-4

LEVEL OF ADDITIONAL CORPS RANGERS NEEDED  
TO PROVIDE 24-HOUR COVERAGE AT THE LAKES

| CLASS                                                 | ADDITIONAL<br>RANGERS<br>NEEDED | RANGERS NEEDED<br>AFTER<br>REALLOCATION |
|-------------------------------------------------------|---------------------------------|-----------------------------------------|
| URBAN A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 30                              | 10                                      |
| RURAL A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 67                              | 62                                      |
| URBAN A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 27                              | 27                                      |
| RURAL A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 88                              | 88                                      |
| ALL B LAKES*                                          | 55                              | 55                                      |
| TOTAL**                                               | 278                             | 254                                     |

\*Based on Previous Sharing Policy

\*\* Includes A lakes that were not classified.

(Source: PRC/PYS)

Alternative Z--Expanded Coverage

As mentioned previously, it is difficult to make any calculations concerning seasonal employees because of the lack of consistency in their utilization at the lakes. However, the seasonal employees do provide a needed temporary stop-gap during peak use at the lakes. While it is possible to improve the current training and use of seasonal employees (as will be discussed in detail in the chapter on training) it is currently against Corps of Engineers policy to issue seasonal employees citation authority. Within the limits of this policy, the seasonal employees can still provide the same level of coverage as rangers, short of issuing citations. They have direct access to both rangers with citation authority and peace officers with full law enforcement powers. The effectiveness of such access, however, will depend upon the responsiveness of the overall visitor protection system, including communication and availability of ranger and peace officer manpower in the lake area.

Thus the recruitment, selection, training, and continued seasonal retention of seasonal employees should be given greater emphasis in the Corps visitor protection program.

If it can be assumed that currently at least half of the seasonal employees or 299 are active participants in resource management and visitor protection, then the total Corps complement of rangers or equivalents at the A lakes during the last season was 612. This would mean that based on previous seasonal attendance of over 147 million at the A lakes, there was an average of 240,000 visitor days per ranger or seasonal equivalent.

It is the opinion of the study team that a more manageable situation would occur and recreation users would have more access and attention from rangers, if the ratio reflected no more than 100,000 visitor days per ranger or seasonal equivalent during the summer season. This would involve increasing the Corps manpower by 858 employees to reach a level of 1470 divided between permanent rangers and seasonal employees.



If the current ratio of 2 to 1 were maintained this would require adding 266 permanent rangers and 572 seasonal employees at the A lakes.

Since the conditions at the B lakes, as previously described, do not warrant this close attention, it is recommended that the rangers be increased so that the ratio does not exceed 150,000 visitor days per ranger or seasonal equivalent per summer season. Maintaining the current ratio, this would involve the addition of 36 permanent rangers and 72 seasonal employees at the B lakes.

Thus the total number of additional rangers needed would be 322 and seasonal employees 644 to reach an increased level of coverage.

To summarize, Table 9-5, displays the manpower needed to improve the Corps of Engineers visitor management and resource protection program by the addition of permanent rangers and seasonal employees.

#### Lakes for Special Consideration

These manpower recommendations are generalized so that they apply across the nation to as many lakes as possible. However, there are unique exceptions. Highly urbanized, highly attended lakes including Lake Sidney Lanier and J. Percy Priest Reservoir, may exceed the standard range of coverage due to their extensive nature. For these lakes, special consideration must be shown to closely assess the problem and determine if the standard coverage should be increased at these high potential crime areas.

This task should not be cumbersome since these lakes are few in number. The study team, after surveying the above mentioned lakes, found that the standard coverage established for all the other large A lakes would serve as a minimal initiation base for these special consideration lakes. The coverage should be closely evaluated after the first month of service and if necessary manpower should then be strengthened.

TABLE 9-5  
IMPROVED MANPOWER LEVEL PLANS AT  
CORPS OF ENGINEERS LAKES

| Staffing<br>Plan      | Current Manpower<br>Levels |                       | Added Manpower<br>Needed to Reach<br>Standard Service |                       | Total<br>Manpower    |                       |
|-----------------------|----------------------------|-----------------------|-------------------------------------------------------|-----------------------|----------------------|-----------------------|
|                       | Permanent<br>Rangers       | Seasonal<br>Employees | Permanent<br>Rangers                                  | Seasonal<br>Employees | Permanent<br>Rangers | Seasonal<br>Employees |
| Alternative<br>Plan Y | 320                        | 615                   | 278                                                   | 0                     | 598                  | 615                   |
| Alternative<br>Plan Z | 320                        | 615                   | 322                                                   | 644                   | 642                  | 1259                  |

(Source: PRC/PMS)

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## Chapter 10

## LEGAL CONSIDERATIONS

A. Introduction

Consideration of enforcement options necessarily entails consideration of several legal issues. These issues are referred to at appropriate points throughout the study, but the study team judges it advisable to include this short section concentrating on the legal issues.

The most important point to understand is that there is an amplitude of federal power to support almost any enforcement option the Corps may choose. Thus the ultimate choice should be based on administrative considerations with relatively little worry about legal constraints. Some options would entail requests for additional statutory power, but there is no question about the sufficiency of constitutional power to accomplish the Corps major purposes.

A second important point is that choice of one enforcement option as the predominant mode of operation does not necessarily preclude use of the other enforcement options on appropriate occasions. For example, a choice to give rangers the power to enforce regulations by the issuance of citations does not deprive them of their common law powers to act in certain aggravated circumstances to end a breach of the peace. Nor is it legally impermissible to give officers or rangers broader powers than they are usually expected or trained to exercise. The problems of when to exercise what powers are more problems of appropriate training than they are of the existence of legal power.

Moving on to the specific legal issues, we have divided our discussion into the following subjects:

- Constitutional powers
- Jurisdiction over federally owned lands
- Sources of criminal law
- Degrees of enforcement power
- Agencies with enforcement power

B. Constitutional Powers

That there is an amplitude of constitutional power to support almost any enforcement option can be seen from two specific provisions of the United States Constitution. Article IV, Section 3, Clause 2, reads in part as follows:

The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States...

Should there be some conflict between federal regulations governing its property and state or local laws, the conflict would be resolved in favor of the United States under the "Supremacy Clause," which appears in Article VI:

This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

Further support for this power of the United States to do what it wishes with its own land can be found in Article I, Section 8, Clause 17, the primary purpose of which was to give the United States "exclusive legislation" over the seat of government, the land for which was to be ceded to the United States by some of the States. That clause went on to grant Congress the power "to exercise like authority over all places

purchased by the consent of the legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings." As we shall see in a moment, the United States has more typically chosen to share jurisdiction over its lands with the States, and this power to take exclusive jurisdiction is less important to this study than the Article IV power "to make all needful rules and regulations" respecting United States property.

One further constitutional point should be mentioned. The United States is a government of enumerated powers, possessing only those powers specifically set forth in the Constitution. Among other things, this means that the United States does not possess "police power," that attribute of sovereignty enabling the state to regulate the activities of its citizens as it sees fit unless it is somehow specifically prohibited from doing so. Every act of the United States must be founded in some specifically stated constitutional power. With perhaps a few exceptions, the lands involved in this study have been acquired and are being used by the United States in the exercise of the commerce power (Art. I, Sec. 8, Cl. 3). The commerce clause has long been construed as giving the United States the power to regulate navigable waters, and that power has been construed as extending to flood control purposes. But even so broadly construed, the commerce power is not the equivalent of the police power possessed by the States, and it cannot be used to support governmental activities totally unrelated to the purposes for which the commerce power is being exercised. However, because of the unqualified sweep of Article IV, and because of the plain relationship of the options considered here to the Congressionally authorized use of the lands in question, this theoretical concern for exceeding the bounds of the commerce clause will have no practical impact on any proposals we are considering.

#### C. Jurisdiction Over Federally Owned Lands

There are several theoretical approaches to defining the types of jurisdiction of the United States over its various lands. These theories

and the legal history behind them have been spelled out in great detail in two major studies: Jurisdiction over Federal Areas within the States, Report of the Interdepartmental Committee for the Study of Jurisdiction over Federal Areas within the States (Part I, 1956, Part II, 1957), and Federal Legislative Jurisdiction, Report Prepared for Public Land Law Review Commission by the Land and Natural Resources Division of the Department of Justice (1969). The Report of the Interdepartmental Committee set forth the four types of jurisdiction we shall discuss in a moment, and the later report reviewed the history and gave a picture of present federal practices.

There is little need here to go into all this history. For one thing, the history illustrates that practical accommodations have been more important than the articulation of legal theories to support them. That is, when a state has in fact exercised law enforcement powers over unoccupied public lands, lawyers asked to justify the practice have been able to supply adequate supporting rationales. For another, recent policy determinations have made the present situation reasonably clear.

The Interdepartmental Committee categorized the myriad of federal-state jurisdictional arrangements into four major categories:

- Exclusive Legislative Jurisdiction. Congress has the sole authority to enact laws for the area. State and local governments have no further jurisdiction to enact laws, although state and local process will be recognized for cases arising elsewhere.
- Concurrent Legislative Jurisdiction. Both federal and state governments have the right to enact and enforce laws, with conflicts between the two being resolved in favor of the federal government under the Supremacy Clause.
- Partial Legislative Jurisdiction. The State has ceded some powers to the federal government while reserving others, which it exercises either exclusively or concurrently with the federal government.
- Proprietary Interest Only. The federal government exercises no legislative jurisdiction over the land, holding it in a manner analogous to that of a private landowner. The State

retains full jurisdiction to enact and enforce laws, although no State law can interfere with the constitutional purposes for which the United States holds the land.

It is important to understand that these four categories are conceptual constructs of the Interdepartmental Committee rather than long-standing legal categories. The terms defined above have not been consistently employed in the fashion used by the Committee. For example, the word "proprietary" was deliberately chosen to avoid use of the more common term "proprietary," which is used in municipal law to describe governmental property ownership and management not based on the government's sovereign powers. The United States has no "proprietary" holdings in that sense.\*

The Interdepartmental Committee was faced with the problem of organizing thousands of different arrangements, many of them very vague and many others very specific, into some generalized categories useful for analysis and further policy development. One of the problems that had prompted creation of the Commission was the inconsistency in practice in defining the type of jurisdiction over newly acquired federal property.

\*State courts frequently contract "proprietary" with "governmental" in cases on the tort liability of state and local governmental bodies. The distinction is important because of the doctrine of sovereign immunity, which bars unconsented suits against the sovereign. To mitigate the harshness of the sovereign immunity doctrine, many states have held governmental bodies acting in a "proprietary capacity" to the standards expected of an ordinary person. This approach has created a morass of conflicting holdings on what is "governmental" and what is "proprietary." For example, is it "proprietary" or "governmental" for a city to operate an amusement park?

The federal courts have consistently rejected this distinction, holding instead that the United States acts only in a governmental capacity, never in a proprietary capacity. Thus the United States cannot be sued without its consent. The two major waivers of federal sovereign immunity are the Federal Tort Claims Act, 28 U.S.C. 2671 et seq. and the Tucker Act, 28 U.S.C. 1346.

Historically, there had been a marked shift in Congressional policy but not in administrative practice. In 1828, Congress had authorized the President to seek exclusive jurisdiction. However, in 1940, Congress created a statutory presumption against exclusive jurisdiction in the absence of some specific action to obtain it. (40 U.S.C. 355.) Despite the clear Congressional policy, administrators continued to seek exclusive, concurrent, or partial jurisdiction. One of the main thrusts of the Interdepartmental Commission's work was that there should be a consistent policy of seeking the least amount of jurisdiction necessary for a particular acquisition. In most cases, it is sufficient for the United States simply to assert its proprietorial interest, leaving legislative jurisdiction in the State.

In the Corps of Engineers projects with which we are concerned in this study, the United States has only a proprietorial interest.

#### D. Sources of Criminal Law

The criminal law applicable in any given place is enacted by the sovereign exercising legislative jurisdiction over that place. Where the United States is exercising exclusive or concurrent legislative jurisdiction its laws will be given effect. Where the State has retained concurrent or partial jurisdiction, its laws will be given effect. Where the United States asserts only a proprietorial interest, the State criminal code will be the effective criminal code, with a major exception of particular importance to this study. This exception can be better understood with a short discussion of the nature of federal criminal law.

Because the United States is a sovereign of limited and enumerated powers, it has never developed a comprehensive criminal code. Such a code is now being considered by Congress, but the criminal statutes now on the books pertain to the protection of major federal powers or interests. There are, for example, laws protecting the postal service, national banks, interstate commerce, currency, and so forth. And, acting



under its Article II powers, Congress has promulgated codes for various territories and possessions. The District of Columbia Code is an example. But there is not a comprehensive code covering the details of all offenses that may be committed on property of the United States.

The problem of filling in the details has been handled in one of three ways. Where the United States is exercising exclusive or partial jurisdiction and precludes the enforcement of state laws by the state, the Assimilative Crimes Act takes effect. It reads as follows:

Whoever within or upon any of the places now existing or hereafter reserved or acquired as provided in section 7 of this title, is guilty of any act or omission which, although not made punishable by any enactment of Congress, would be punishable if committed or omitted within the jurisdiction of the State, Territory, Possession, or District in which such place is situated, by the laws thereof in force at the time of such act or omission, shall be guilty of a like offense and subject to a like punishment. (18 U.S.C. 13.)

The section 7 referred to defines "special maritime and territorial jurisdiction of the United States" as used in the Criminal Code.

The effect of the Assimilative Crimes Act is to convert what would otherwise be state offenses into federal offenses. The state code in effect becomes part of the applicable federal law. But because of the definition of special maritime and territorial jurisdiction, the Assimilative Crimes Act is regarded as operative only where the United States has exclusive, concurrent, and perhaps partial jurisdiction. The issue is not crystal clear because the Criminal Code uses the words "exclusive or concurrent jurisdiction" and then goes on to describe conditions as partial legislative jurisdiction. The Code provision was written long before the work of the Committee.

The second means of filling in the details of the criminal law is to rely on the state law as directly applicable on federal lands. Where the federal government exercises a proprietorial interest only, the state criminal code is regarded as having full effect. This differs from the

Assimilative Crimes concept in that the state law is not regarded as federal law or enforced through the federal courts. It remains state law enforceable by state law enforcement officials in state courts. The only qualification to be noted is that state law cannot be used to interfere with or disrupt legitimate federal functions.

The last means of filling in the details is the most important for our purposes here. It is an ordinary practice for Congress to give administrative officers powers to promulgate regulations which have the force and effect of law. This enables administrators familiar with the specific needs of particular programs to design regulations to meet those needs without going through the cumbersome process of seeking further Congressional action.

It is very important to understand that these administrative regulations become part of the criminal law applicable to a given area. The process employed to enforce them is criminal process; the sanctions employed are criminal sanctions. The wording of the statutes with which we are primarily concerned illustrates the point:

The water areas of all such projects shall be open to public use generally for boating, swimming, bathing, fishing, and other recreational purposes...all under such rules and regulations as the Secretary of the Army may deem necessary including but not limited to prohibitions of dumping and unauthorized disposal in any manner of refuse, garbage, rubbish, trash, debris or litter of any kind.... Any violation of such rules and regulations shall be punished by a fine of not more than \$500 or imprisonment for not more than six months, or both. Any persons charged with the violation of such rules and regulations may be tried and sentenced in accordance with the provisions of section 3401 of Title 18. (84, Act of Dec. 22, 1944, 58 Stat. 889, as amended by 234, Act of Dec. 31, 1970, PL. 91-611, 84 Stat. 1833, 16 U.S.C. 460d.)

The constitutionality of having an administrative officer establish what are in effect criminal laws, ordinarily a legislative prerogative, was upheld in United States vs. Grimaud, 220 U.S. 506 (1911).

Under the general provisions of Title 18 of the United States Code, the violations mentioned in the foregoing passage are petty offenses, a form of misdemeanor. The code provides the following general definitions (18 U.S.C. 1):

Notwithstanding any Act of Congress to the contrary:

- (1) Any offense punishable by death or imprisonment for a term exceeding one year is a felony.
- (2) Any other offense is a misdemeanor.
- (3) Any misdemeanor, the penalty for which does not exceed imprisonment for a period of six months or a fine of not more than \$500, or both, is a petty offense.

One further point should be made about the Secretary of the Army's power to define petty offenses. Because the regulations are creating criminal offenses, they will be given strict construction, as will the statute authorizing their issuance. Thus regulations proscribing conduct unrelated to the operation of a project (e.g., a rule prohibiting the counterfeiting of state lottery tickets) would be vulnerable to legal challenge, as would vaguely drawn regulations (e.g., a rule against "vagrancy"; cf. Papachristou v. City of Jacksonville, 405 U.S. 156 (1972)).

But regulations carefully drawn to proscribe conduct interfering with a project's lawful purposes—"boating, swimming, bathing, fishing, and other recreational purposes"—would be valid. Because of the pitfalls of legislative drafting, it would be prudent to base the specific wording of the regulations on well-recognized models such as the American Law Institute's Model Penal Code (Proposed Official Draft, 1962). Article 250 of the Model Penal Code, "Riot, Disorderly Conduct, and Related Offenses," would be particularly helpful.

#### E. Degrees of Enforcement Power

Different public officials have been given different degrees of responsibility and authority for enforcing criminal statutes. Within

constitutional limitations, the degree of authority to be given any given official depends upon his statutory authority. The amount of his power he delegates to subordinates is a matter for administrative decision.

But whatever formal power a particular officer may have been officially given, he, like everyone else, has certain common law rights. A government official vested with no formal authority still has the right to make a citizen's arrest under appropriate circumstances. He does not lose that right by receiving some formal authority to issue citations or make arrests under other circumstances.

The right is a right to make an arrest (which is taking a person into custody for the purpose of initiating criminal proceedings against him) without a warrant for a felony or for a breach of the peace taking place in his presence. This latter provision is of particular pertinence to our study here. It means that Corps personnel have common law power to intervene in a breach of the peace occurring in their presence. They need no special authority to act, although there are some marginal advantages to having such authority.\*

Apart from the citizen's arrest concept, public officers can be given several different levels of authority and responsibility in enforcing criminal laws. The lowest level is the authority to issue citations, which are formal notifications to the person served to appear before a magistrate at a certain time or to suffer certain designated

\*The legal advantages of having formal authority to act pertain primarily to felonies. The common law rule is that a law enforcement officer may arrest without a warrant if he has reasonable grounds to believe that a felony has been committed and that the arrestee committed. A private citizen will be liable for false arrest if a felony has not in fact been committed, even though he had reasonable grounds for believing one had been committed. (Perkins on Criminal Law, 2nd ed. (1969), pp. 978-979.) This common law rule has been modified in many states, and officers with limited arrest powers should be instructed in the legal ramifications of attempting felony arrests without a warrant. As a practical matter, having some legal status to make arrests will usually lead to resolution of doubtful factual issues in favor of the officer.

consequences. The citation is a step to initiate the criminal process. It is used in lieu of arrest in many circumstances, the most familiar being in traffic enforcement. But the purpose is the same, to subject the person to the judicial process.

The next degree of authority is the authority to make arrests. As already noted, an arrest is taking a person into custody for the purpose of initiating the criminal process against him. Because of the obvious disruption of the arrested person's activities, arrest is plainly a serious matter.

The next levels of enforcement responsibility pertain more to the extent of the arresting party's involvement in the criminal process than they do to his basic authority. His power to arrest is a drastic power. But his other responsibilities may include investigation of suspected offenses; collection, preservation, and presentation of evidence; crime prevention; procurement and execution of warrants; and collaboration with the prosecuting attorney. When we speak of "full enforcement" powers, we are usually referring to this broader range of responsibilities. Their proper performance will obviously require a substantial amount of training.

#### F. Agencies with Enforcement Power

Consistent with the principle that the United States is a sovereign with limited and enumerated powers, there are few federal agencies with anything resembling universal enforcement powers. Most have very specifically defined jurisdictions. The Drug Enforcement Agency concentrates on narcotics and dangerous drugs. The Secret Service focuses on counterfeiting. The Internal Revenue Service and its divisions are concerned with tax collection. The statutes within the scope of the Federal Bureau of Investigation's responsibility are so miscellaneous in quality that it seems that the Bureau has comprehensive federal enforcement authority, but in fact it does not.

Only the United States Marshals have a general, non-specific arrest authority, but a careful examination of that authority and of the

Marshals' actual practices will show them to work primarily in support of the courts. They have a responsibility to serve and execute warrants, but the purpose of that activity is to protect the integrity of the judicial system. The Marshals do not undertake general law enforcement responsibilities.

The enforcement power of the Corps of Engineers with which we are here concerned was provided by the Flood Control Act of 1970, the relevant passage of which reads as follows:

All persons designated by the Chief of Engineers for that purpose shall have the authority to issue a citation for violation of the regulations adopted by the Secretary of the Army, requiring the appearance of any person charged with violation to appear before the United States Magistrate, within whose jurisdiction the water resource development project is located, for trial; and upon sworn information of any competent person any United States magistrate in the proper jurisdiction shall issue process for the arrest of any person charged with the violation of said regulations; but nothing herein contained shall be construed as preventing the arrest by any officer of the United States, without process, of any person taken in the act of violating said regulations. (16 U.S.C. 460d.)

It is clear that responsibility for enforcement of Corps administrative regulations rests with the Corps. But the statutory authority is limited to issuance of citations. It does not extend to arrest. For broader enforcement functions, the Corps must turn to other agencies. For specific offenses within the scope of some other agency's jurisdiction, such as moonshining, the Corps can turn to that agency. But what of more general criminal offenses? And what of arrests?

In lands in which the United States holds only a proprietary interest, state and local officials can enforce state and local laws. But if the offense in question is a federal rather than a state offense, state courts have the power to issue warrants to state officers to bring the offender before the federal courts (18 U.S.C. 3041). This provision goes back to the Judiciary Act of 1789, when the federal government had no enforcement capacity of its own and was totally dependent upon state officials.

G. Conclusion

At the present time, the Secretary of the Army can extend the scope of his regulations to include conduct interfering with the lawful purposes of a project. The Chief of Engineers can authorize issuance of citations for violations of these regulations.

Under common law powers to make a citizen's arrest, Corps personnel can make arrests for breaches of the peace taking place in their presence. However, there are serious questions of the prudence of exercising this particular right. Circumstances to be taken into account are the adequacy of training to make arrests, the availability of authorized and trained personnel, and the seriousness of the breach of the peace.

If the Corps of Engineers wants its personnel to have arrest as well as citation authority, it must seek further statutory authority. A precedent can be found in 16 U.S.C. 10a, which gives the personnel of national parks the power to arrest for violations of regulations issued by the Secretary of the Army (sic) under 16 U.S.C. 9a.

If the Secretary of the Army wants authority to draw regulations creating misdemeanors greater than petty offenses, then he must seek further legislation. However, his present authority is probably adequate for most purposes.

## Chapter 11

ALTERNATIVES FOR THE ADMINISTRATION OF  
VISITOR PROTECTION AT CORPS OF ENGINEERS LAKESA. Introduction

Based on the assessment of the inadequacies of the current level of law enforcement and visitor protection afforded recreation users at Corps lakes, the present section will discuss alternatives for administering an effective visitor protection program at the lakes that meets the standards established in Chapter 8.

The alternatives chosen for discussion, are being considered because of their potential applicability to solving the current problems at the Corps of Engineers lakes. The study team selected the following alternatives as a result of a combination of factors including: 1) the experiences of other national recreation agencies in providing law enforcement and visitor protection; such as, the National Park Service, U.S. Forest Service, and the Bureau of Land Management; 2) the current scope of work and conferences with OCE; and 3) the "transference" of effective courses of action implemented by other organizations that PRC/PMS has assisted in law enforcement efforts.

The alternatives to be discussed include the following:

Alternative I. Continue the status quo.

Alternative II. For the Corps of Engineers to withdraw from supplying visitor protection altogether and allow the responsibilities and operations to be provided by another agency.



Alternative III. To supplement current Corps of Engineers visitor protection services with assistance from other agencies.

Alternative IV. Increase the authority and visitor protection responsibilities of the Corps of Engineers.

Alternative V. A combination of Alternatives III and IV.

The advantages and disadvantages of each alternative will be evaluated to determine their feasibility in terms of the following criteria:

- Overall range of services, resources, and capabilities.
- Timeliness of service.
- Cost-effectiveness of service.
- Ease of implementation.

In addition these advantages and disadvantages will be assessed in relation to the impact on the Federal government, state and local agencies, Federal and local court systems, and the recreation users.

Discussion of the range of application of these alternatives, will primarily pertain to Class A and B lakes. Existing problems at the C and D lakes are, in some cases, not the Corps responsibility and, in other cases, must be handled as a specific case (e.g., national security problems). Additionally, the visitor protection problems, as defined by the study, are almost non-existent at the locks and dams open for tourism and sightseeing. Thus, the emphasis, in evaluating the feasibility of the various alternatives, is aimed at the major visitor protection problems found during the study.

ALTERNATIVE I: MAINTAIN STATUS QUODiscussion

The first and most obvious alternative which the Corps can pursue is maintenance of the present state of affairs. Certainly this is the easiest course to follow as it does not require any direct action on an organizational or programmatic level. The concept of "change" has become a byword for "progress" in our society, if not a way of life. Yet, organizational and management literature is replete with case studies of "progress" which has had little or no impact or a regressive influence on the system or the products in question. A consideration of maintaining the status quo, therefore, should not be rejected out-of-hand, but given analysis as any other reasonable alternative. Accordingly, there are a number of advantages and disadvantages associated with the decision to pursue this course of action.

Costs

To continue the current course of action obviously will require no additional funds; however, it is possible to relate the costs of this alternative to the overall costs of crime and vandalism currently at the lakes, as detailed in Chapter 7.

Advantages of Alternative I.

The advantages of this alternative are primarily lodged in the lack of increased administrative and operational responsibilities which would otherwise have to be addressed in action-oriented decisions.

Changes in conjunction with decisions to alter present approaches to law enforcement undoubtedly will require a series of definitive and planned steps on administrative and organizational levels. Regardless of the utility and prudence of these moves, they will undoubtedly cause some inconvenience and organizational disturbance during the transition. A decision to maintain the status quo will avoid these problems. Thus, advantages of this alternative include the following:

- Personnel will remain unaltered thus avoiding the degree of confusion associated with staff realignment, filling new positions, altering task assignments and responsibilities, adding to or subtracting from staff, and adjusting pay scales, fringe benefit packages and related benefits.
- Field operations will remain substantially the same avoiding the development of new policy and procedures, training and staff development for assumption of added responsibilities and requirements, and administrative concerns and technical assistance requirements for the uniform and efficient implementation of new operational methods and routines.
- Equipment, resource acquisitions and associated costs will remain at the same level such as those that otherwise would be expended on improved records maintenance systems and related law enforcement/visitor protection services and equipment.
- There will be less restrictions on the visitor to Corps lakes. While increased visitor protection and available law enforcement appears to be of benefit to most of the public, it also means increased enforcement of all regulations and greater restrictions on the use of Corps services and facilities as well as on personal property and conduct. To a percentage of the public, this restriction would not be welcome and would not be imposed under Alternative I.
- Related components of the criminal justice system will not be required to expand or otherwise increase services or facilities in response to improved Corps law enforcement. Federal magistrates, state and local law enforcement agencies could maintain present modes of operation, budgets, personnel, and related resources. For example, where subsidized, law enforcement might otherwise be considered as an "action" alternative, alternative I would continue to maximize or capitalize upon the use of "free" services which local law enforcement agencies are obliged to provide.

#### Disadvantages of Alternative I.

The disadvantages associated with inaction are generally spelled out in the statement of the problem in Chapter 6 of this report. In essence, inaction will serve to maintain the problems as noted there and, in some cases, hasten their seriousness and complications. On the basis of that discussion, it should be reiterated that while the level and seriousness of the problem at Corps lakes has not been viewed as a "critical" one, the Corps inadequacy to cope with the situation as it exists is somewhat more serious. The following disadvantages associated with Alternative I should be considered from both of these perspectives. They include:

- Rising crime is an inevitability for Corps recreation areas as more and more individuals vie for scarce recreation facilities and as the Corps expands its array of services and opportunities at water development projects. The experience of the National Park Service has demonstrated that increasingly urbanized recreation areas can produce a corresponding increase in visitor protection and law enforcement problems. To this extent, failure, in any substantive manner, to respond to law enforcement needs will tend to magnify the volume and the effects of crime in the future.
- Workloads involving law enforcement will increase as a result of increased law enforcement problems. Probably more serious than actual workloads is the failure to resolve the problems associated with crime and the role of the ranger. Without a more articulate concept of the policy associated with Title 30 enforcement, it will continue to be sporadically and inconsistently applied to the public.
- Training and resources necessary for the enforcement of state laws and federal regulations and protection of the public will continue to be inadequate. The duties and responsibilities of the ranger regarding law enforcement are ambiguous, and as such, the skills necessary for job performance are not precisely known. Training will continue to be unresponsive to these needs and personnel recruitment and performance evaluation based upon indeterminant criteria.
- The Corps goal for recreation resource management will remain imprecise and subsequent developmental policy a product of inadequate planning. Concerns specific to law enforcement in environmental design will continue to be implemented on a sporadic and unplanned basis.
- Organization for the delivery of law enforcement services will remain more a product of convenience and availability than of planning and design. The availability of law enforcement agencies, their willingness to provide service, and their available resources will continue to determine the level of law enforcement at each Corps lake. This is in opposition to a system of service based on need and conformance with established law enforcement standards.
- Crime reporting and recording will remain a product of personal volition and uncontrolled discretion at the project level, and incident statistics will reflect this more than actual criminal acts or violations. For the Corps, this will continue to cause management and planning for law enforcement to be unresponsive to actual situations at each lake. For the visitor it will continue to result in the perpetration of crime, which is unrecorded at the national level and for which remedial action is not being taken.

- Vandalism and ecological damage as primary concerns of the Corps will continue to be committed without any significant response in either enforcement or countermeasures. The latent and unreported costs of these acts will continue to cost the Corps in excess of \$12-17 million per year nationwide.
- Responsibilities of the Corps both to the community in which lakes are located and to the public will continue to be inadequately fulfilled in the areas of law enforcement and visitor protection. The result will be a failure to increase security and protection and a reduced total recreation experience for all users concerned.

#### Summary

For the Corps to follow this alternative would be most advantageous from a cost standpoint. However, the obvious social and environmental vitiation demands action. If the Corps does not plan and direct this action, it might be compelled to do so by other environmental or social agencies. In this case the Corps would have to expediently implement action not of their choosing or planning.

ALTERNATIVE II: FOR THE CORPS OF ENGINEERS TO WITHDRAW FROM SUPPLYING VISITOR PROTECTION ALTOGETHER AND ALLOW THE RESPONSIBILITIES AND OPERATIONS TO BE PROVIDED BY ANOTHER AGENCY

Discussion

Consideration of this alternative differs slightly from alternative I--To Maintain The Status Quo. By maintaining the status quo, the Corps rangers would continue to perform a quasi-law enforcement operation. That is, some rangers are aggressively providing visitor protection and enforcing Title 36, which indirectly serves as an order maintenance vehicle. More important, however, is the fact that by these actions the Corps is tacitly increasing its responsibilities to provide continued visitor protection.

Alternative II would serve to clearly define the objectives of the Corps in providing recreation-resource management and leave the law enforcement and visitor protection responsibility to another agency. Precedent for this type of dual agency recreation management has been set by many city park and recreation agencies, such as the San Francisco Recreation and Parks Department, which leaves the law enforcement duties at Golden Gate Park to the San Francisco Police Department. Considering that the implementation of this alternative relies on the availability of law enforcement services, there are three sub-alternatives to be discussed as follows:

- II-A Allow local law enforcement to assume all law enforcement related responsibilities.
- II-B Request other Federal agencies to provide law enforcement.
- II-C Establish a Federal park police agency with jurisdiction over Federal lands.

The primary attraction of this general alternative is the lack of cost for the Corps of Engineers to implement this alternative. However, because of this lack of cost, it may be extremely difficult to induce a law enforcement agency to supply a service which meets the standards for the lakes. Even though the local police have jurisdiction at the lakes, the level of service may be inadequate, as found in many of the field visits.

A discussion of the specific advantages and disadvantages of each sub-alternative will follow.

Sub-Alternative II-1: Allow Local Law Enforcement to Assume All Law Enforcement Related Responsibilities

Discussion

Implementing this sub-alternative will serve to increase local law enforcement service slightly, but in general, service will remain on an emergency calls-for-service basis.

Cost

The cost of each sub-alternative fluctuates, but in general, the Corps would not be spending any funds to reimburse other law enforcement agencies for their services. However, the Corps may still wish to add additional rangers for resource management and protection. The advantages and disadvantages of the sub-alternatives must be evaluated aside from this issue, but it should be kept in mind for evaluation of the various overall alternatives with each other.

A cost to be considered, however, must be the current cost of losses due to crime and vandalism which one could anticipate would remain constant or increase if law enforcement services are not guaranteed.

Advantages of Sub-Alternative II-1

- Low cost of implementation.
- Local law enforcement is trained and maintains full police powers.
- Local law enforcement generally has available backup and support services.
- No increase in Federal caseload.
- As most visitors to Corps projects are from the local areas, problems at the lake will be considered local problems rather than problems specific to the Corps itself.

- Visitors will have a minimum of infringements on their recreation activities.
- The Corps will not have to develop its own law enforcement program or policies.

#### Disadvantages of Sub-Alternative II-A

- Costly for local government.
- Difficult to ensure adequate service.
- Visitors and resources will not be secure.
- Lack of uniform service.
- Local law enforcement is understaffed.
- Response time, in emergencies, may be slow.
- Local law enforcement would not handle resource protection or visitor information.
- Local law enforcement and local courts may not "enforce" the law against citizens in their jurisdiction committing offenses on Corps property as stringently as the Corps, especially with cases involving environmental damage.
- The level and quality of service may vary as a new sheriff is elected or a new police chief appointed.
- The continued imbreaglio of law enforcement services is costly and detrimental to visitors and natural resources.

#### Sub-Alternative II-B. Request Other Federal Agencies to Provide Law Enforcement

##### Discussion

This sub-alternative would involve the utilization of current Federal law enforcement forces; such as, the U.S. Park Police, the Government Services Administration (GSA) Police, U.S. Marshal Service, or the Federal Bureau of Investigation (FBI). There are several advantages to using such well-trained police forces; however, the major detriment lies in the difficulty of inducing these agencies to supply the service.



Cost

In terms of the unit-cost for the service alone, the federal costs as opposed to the local costs, would be far greater. While the Corps would still not be responsible for reimbursement, this issue is important for the evaluation of the alternatives. Specific advantages and disadvantages of this sub-alternative will be described.

Advantages of Sub-Alternative II-B

- Establishment of administrative arrangements for services with one or more of these agencies would be relatively simple.
- A Federal level law enforcement agency would be a more suitable approach from the perspective of administration and due to the national scope of the Corps law enforcement needs.
- These agencies are experienced in the administration and delivery of law enforcement services; and, NPS has the particular advantage of experience unique to the recreation environment.
- No added expense to the Corps.
- These agencies have better support services, although the timeliness of this support is questionable.
- No new administrative mechanisms to be implemented by the Corp. for law enforcement.
- No necessity and burden of maintaining criminal records.
- Visitors will feel protected if adequate service is supplied.

Disadvantages of Sub-Alternative II-B

- Manpower ceilings for these Federal agencies may not allow the assumption of added responsibility for Corps law enforcement.
- Costly to the agency providing services.
- The role and mandate of some of these agencies may preclude their use unless a significant amount of administrative re-alignment is performed and some enabling legislation passed. These are discussed in turn:
  - The U.S. Marshal's duties and power consist of attendance upon Federal Courts, service of the Federal process, and transportation of Federal prisoners (Chapter 37, Title 28

U.S. Codes, Section 569). These officers are not specifically trained in preventive law enforcement as well, and would require a considerable amount of retraining. Lately the U.S. Marshal Service has developed a special operations group to quell disturbances on Federally-owned property. However, their use is highly restricted and very expensive for the type of service that is being considered for Corps lakes.

- The G.S.A. may be restricted in their usage due to U.S. Codes (40 USC, 318) which state that the G.S.A. can appoint guards on Federal lands with concurrent or exclusive jurisdiction. This may require change in the G.S.A. charter to serve Corps lakes which have proprietorial jurisdiction.
- The Federal Bureau of Investigation is investigatory in purpose and is not equipped or prepared to provide general preventive law enforcement on a wide-scale basis.
- The National Park Service jurisdiction would require some form of alteration to incorporate land owned by the Corps of Engineers. While the National Park Service is the most likely candidate for the assumption of recreation law enforcement duties, their willingness to accept this massive additional burden is highly questionable.
- Regardless of the agency which might be selected, there is a significant propensity involved in this approach for policy-making decisions to be usurped by the agency providing law enforcement services to the Corps. In this respect there is a significant risk that the Corps will lose a degree of internal control with regard to administration, organization, and planning.
- On procedural level there could be considerable problems in terms of recruiting, screening and training a large body of additional persons for any one of these Federal agencies and deploying them throughout the United States on a seasonal basis.
- Costs in terms of salaries and fringe benefits for these individuals would be greater than those of either state or local law enforcement agencies.
- Federal magistrates caseload would increase.

Sub-Alternative II-C. Establishment of A Federal Park Police Agency with Jurisdiction over Federal Lands

Discussion

An overall systemic approach for providing law enforcement and visitor protection at the federal level is the establishment of a new, special park police organization. Officers under such an organization would have full law enforcement powers. Jurisdiction of the Federal Park Police would primarily be limited to federal lands and waters used for recreation and related purposes (such as historic areas and fish and wildlife reserves). Mutual aid service agreements could be made with state and local law enforcement agencies as well as with other federal law enforcement agencies.

This alternative involves the separation of full law enforcement powers from park rangers and other management and program personnel. However, the Federal Park Police officers would be trained to deliver enforcement services in a manner suitable and appropriate to the particular uses and environmental situations prevailing at federal recreation areas. Ranger personnel would remain responsible for providing visitor and resource protection.

The special park police force system also would be facilitated through inauguration of an inter-agency coordinating committee or council. Members of the council would consist of representatives of agencies whose lands are serviced by the park police. Depending upon the level of organization, the inter-agency committee would be established either separately or housed within a lead agency whose representative would be chairman and provide staff services. The committee's role would be to establish policies and objectives for the organization and operation of the special park police, including a uniform interpretation and enforcement of laws and regulations in areas served.

There are three basic organizational options to establishing a Federal Park Police program. These are summarized as follows:

1. Extend services of an existing federal resource management agency, including:
  - a. Establishment of an inter-agency coordinating committee to advise on policy and practice of law enforcement at federal park and recreation areas.
  - b. Provision of a training program for law enforcement at federal park and recreation areas.
  - c. Provision of park police officers at federal park and recreation areas.
2. Establish a new special park police organization within (1) an appropriate resource management agency or (2) an independent position at the sub-cabinet level, including:
  - a. Establishment of an interagency coordinating committee to advise on policy and practice of law enforcement at federal park and recreation areas.
  - b. Provision of a training program for law enforcement at federal park and recreation areas.
  - c. Provision of park police officers at federal park and recreation areas.
3. Establish a sub-cabinet level Council on Park Safety (COPS) with authority to:
  - a. Establish uniform interpretation, policy, and practice of law enforcement services administered by the respective federal agencies managing park and recreation areas and facilities.
  - b. Train and certify agency personnel to serve as park police at their respective agencies installations and lands.
  - c. Establish a suitable badge and patch or other identification system to distinguish rangers having special law enforcement authority.

The following schematic explains the nuances of each organizational option:

SPECIAL FEDERAL PARK POLICE

|                                                           | Option<br>1                                                      | Option<br>2                                                      | Option<br>3                                                                                   |
|-----------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                           | Expand Existing<br>Federal Organization                          | Establish New<br>Federal Organization                            | Establish Council<br>To Standardize<br>Park Enforcement<br>Of All Federal<br>Federal Agencies |
| Role of<br>Inter-agency<br>Committee<br>On Park<br>Police | Policy-making<br>Coordinate<br>Standardize<br>Budget<br>Advisory | Policy-making<br>Coordinate<br>Standardize<br>Budget<br>Advisory | Policy-making<br>Coordinate<br>Standardize<br>Mandatory                                       |
| Operational<br>Functions                                  | Training<br>Enforcement                                          | Training<br>Enforcement                                          | Training<br>Certify Badge and<br>Patch on Respec-<br>tive Ranger Uni-<br>forms Only           |

While the study team is obviously not in a position to recommend that the Corps of Engineers attempt to promote this alternative, the idea is that the feasibility of the alternative may be evaluated for serious consideration by the federal land managing agencies.

Cost

The cost of establishing a special Federal Park Police would be comparable to the salary and overhead figures for the U.S. Capital Park Police. Expansion of training, size of police force, and equipment requirements would likely expand proportionally to existing costs.

Advantages of Sub-Alternative II-C:

- Standardized interpretation and enforcement of rules and regulations relating to visitor use of federal park and recreation areas.
- A better recording and accounting system would be provided both with criminal offenses and administrative expenses.

- Necessary concentration on crime prevention and law enforcement would be provided where needed and in a manner compatible with park and recreation management operation.
- Rangers would be relieved of law enforcement duties to concentrate on administering policies and regulations more closely aligned with visitor assistance activities and resource management duties.
- Would eliminate confusion of interpretation and execution authority between law enforcement and ranger personnel, including establishing a better understanding by visitors, non-federal law enforcement authorities, and the criminal justice system (courts).
- Elimination of the problem of overlapping law enforcement jurisdictions (federal-federal and federal-non-federal).
- Reduction in local court caseload.
- A highly improved base for professionalism in park law enforcement would be established.

Disadvantages of Sub-Alternative II-C:

- Implementation of this alternative would be a highly sensitive issue.
- Would require several years to implement.
- May in some instances duplicate satisfactory services already provided by federal and non-federal law enforcement organizations.
- Involves creation of another organization in the field of outdoor recreation which is already fragmented at the federal level.
- Increase in caseload for the federal court system.

Summary

The obvious advantage of implementing this alternative would be the considerable relief for the Corps from both a cost standpoint and responsibility for law enforcement services. These are serious obligations to be sure and should only be pursued by those interested and dedicated to the profession.

The primary disadvantage, for purposes of this study, is the length of time and difficulty associated with implementation. Nonetheless, this alternative should be given future consideration.

There are other ramifications of this alternative to be considered, but these are some of the more significant ones that can influence Corps organizational objectives. These matters are important in comparing the alternatives.

ALTERNATIVE III: SUPPLEMENTATION OF CURRENT CORPS OF ENGINEERS VISITOR  
PROTECTION PROGRAM WITH SUBSIDIZED ASSISTANCE FROM  
OTHER LAW ENFORCEMENT AGENCIES

Discussion

A third major alternative which is available to the Corps of Engineers involves supplementing current visitor protection services with subsidized assistance from other law enforcement agencies.

This approach is relatively common throughout the United States among agencies which maintain high levels or unusual forms of law enforcement problems but which cannot provide these services for themselves because of Federal manpower ceilings. The most frequent example of this practice involves the use of private security police by major corporate and retail enterprises, as well as by the smaller operations which frequently are the targets of crime.

For the Corps, there are several ways in which this practice can be approached from subsidy of local and/or state law enforcement, or retention of private police services, to subsidy of other Federal level agencies for use exclusively at Corps lakes. Each of these will be discussed in this section, and each can provide the additional level of personnel which has been called for in the manpower improvements discussion of this report.

While state and local law enforcement agencies and some Federal level agencies under law must provide assistance to Corps lakes as requested, this does not ensure their continuous presence at the lake or their ability to provide the level of law enforcement services that are often required. In the discussion of the problem, several matters were noted which bear review here. Although state and local law enforcement are providing services to the Corps, many are bound by limited budgets and personnel levels to provide only a minimal level of service to these areas. This is more often the case in rural areas where county sheriff's cannot afford to provide the level of services needed and are frequently



restrained by law from performing preventive patrol or surveillance. And too, many of these departments feel a primary responsibility to county residents who are in effect paying directly for their services. This is often a point of concern among these agencies who are caught between their obligation to community residents and their legal obligation to respond when called. But the basic problem under this situation is the fact that these agencies are not performing the level of preventive surveillance which is required in most instances; that is, the type of surveillance which is essential to the prevention of the significant number of potentially suppressible crimes which are presently being committed.

A similar situation holds true among state agencies that provide services but are frequently spread thin throughout the state and unable to receive additional finances for improving services specifically at Corps lakes. Federal agencies are available on call in particular situations, but provide no regular on-site duties and certainly no preventive law enforcement.

The proposals, as suggested in this alternative, involve providing required finances directly from the Corps to any one (or combination) of these agencies specifically for the purpose of ensuring adequate law enforcement at Corps projects. The specific sub-alternatives to be considered include:

- III-A Subsidy of local law enforcement
- III-B Subsidy of state level law enforcement
- III-C Subsidy of private police
- III-D Subsidy of other federal law enforcement services

Each sub-alternative will be discussed separately in the remaining discussion.

Sub-Alternative III-A: Subsidy of Local Law EnforcementDiscussion

The first form in which this major alternative could be implemented would involve the subsidy of local law enforcement agencies (i.e., city and county) at each project location which have contiguous jurisdiction with the Corps. While this solution would serve to provide needed law enforcement services to the lake areas there are many problems involved in its implementation and the supervision of service delivery, as well as the basic quality of those services which are being purchased. The major asset of the approach, however, lies in the fact that it utilizes the services of established, trained, and equipped law enforcement agencies rather than requiring the Corps to establish its own duplicative organization. At the same time it leaves the function of recreation management to the Corps which is best equipped for this function.

Cost

Estimates for the costs to be incurred by local law enforcement vary considerably in urban and rural areas. The 1972 census found that the mean starting salary for patrolmen in cities over one million in population was \$10,497. Table 11-1 shows ranges of police patrolman starting salaries expressed as percentage of this mean starting salary. For larger county police, Table 11-2 displays average total county expenditures (FY 71-72) on police protection in states which contain a significant number of the Corps lakes. The full-time equivalent payroll and expenditures per employee are also detailed.

The information on these tables reflect the disparity in costs for police services between large western and northern cities and counties and small, rural areas. While the Corps lakes are typically spread throughout the nation, the discussion on analysis revealed that 70 percent of the A lakes were centrally located in the lower midwest and southern states. The police salaries in these states are generally below the average for the country. However, these local agency payrolls

Table 11-1

RELATIONSHIPS IN MUNICIPAL POLICE OFFICER  
STARTING PAY TO THE WEIGHTED MEAN OF STARTING SALARIES  
OF OFFICERS IN CITIES OVER 1,000,000 POPULATION  
BY BROAD REGIONS AND BY CITY SIZE, 1972

| City Population<br>Size Class | Weighted<br>Mean | Percent of Mean of Cities Over 1,000,000 |        |      |       |        |      |         |        |      |           |        |      |
|-------------------------------|------------------|------------------------------------------|--------|------|-------|--------|------|---------|--------|------|-----------|--------|------|
|                               |                  | West                                     |        |      | South |        |      | Midwest |        |      | Northeast |        |      |
|                               |                  | Low                                      | Median | High | Low   | Median | High | Low     | Median | High | Low       | Median | High |
| Over 1,000,000                | \$10,497         | -                                        | 99%    | -    | -     | 80%    | -    | 84%     | 94%    | 104% | 98%       | 100%   | 101% |
| 500,000 to 1,000,000          | -                | 82%                                      | 104%   | 126% | 73%   | 75%    | 78%  | 70%     | 82%    | 94%  | 79%       | 85%    | 91%  |
| 250,000 to 500,000            | -                | 85%                                      | 98%    | 111% | 69%   | 74%    | 79%  | 61%     | 73%    | 93%  | 76%       | 82%    | 87%  |
| 100,000 to 250,000            | -                | 69%                                      | 86%    | 103% | 57%   | 70%    | 81%  | 57%     | 75%    | 93%  | 76%       | 82%    | 87%  |
| 50,000 to 100,000             | -                | 60%                                      | 77%    | 94%  | 59%   | 70%    | 81%  | 69%     | 79%    | 90%  | 56%       | 72%    | 88%  |
| 25,000 to 50,000              | -                | 54%                                      | 75%    | 96%  | 48%   | 58%    | 69%  | 57%     | 72%    | 88%  | 56%       | 74%    | 93%  |
| 10,000 to 25,000              | -                | 51%                                      | 72%    | 93%  | 42%   | 60%    | 78%  | 51%     | 70%    | 86%  | 60%       | 75%    | 91%  |

(Source: International City Management Association, Municipal Yearbook, 1973.)

Table 11-2

**COUNTY POLICE PROTECTION EXPENDITURES AND FULL-TIME EQUIVALENT  
PAYROLL BY SELECTED STATE TOTALS, and  
AVERAGE EXPENDITURE PER FULL-TIME EQUIVALENT EMPLOYEE**

|                           | <u>County Police Protection</u>                                                 |                                                                               |                                                                                     |
|---------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                           | <u>Total</u><br><u>Expenditures</u><br><u>FY 71-72</u><br><u>(in thousands)</u> | <u>Full-Time</u><br><u>Equivalent</u><br><u>Payroll</u><br><u>(Oct., '72)</u> | <u>Expenditures</u><br><u>Per Full-Time</u><br><u>Equivalent</u><br><u>Employee</u> |
| Alabama                   | \$ 8,003                                                                        | 888                                                                           | 9,010                                                                               |
| Arizona                   | 10,276                                                                          | 1,038                                                                         | 9,900                                                                               |
| Arkansas                  | 4,030                                                                           | 547                                                                           | 7,370                                                                               |
| California                | 178,906                                                                         | 12,493                                                                        | 14,320                                                                              |
| Colorado                  | 6,355 <sup>1/</sup>                                                             | 711                                                                           | 8,940                                                                               |
| Connecticut <sup>1/</sup> | 74,398 <sup>1/</sup>                                                            | 5,977                                                                         | 12,450                                                                              |
| Georgia                   | 20,854                                                                          | 2,032                                                                         | 10,260                                                                              |
| Idaho                     | 3,053                                                                           | 413                                                                           | 8,480                                                                               |
| Illinois                  | 26,154                                                                          | 2,419                                                                         | 10,810                                                                              |
| Iowa                      | 5,704                                                                           | 600                                                                           | 9,510                                                                               |
| Kansas                    | 5,758                                                                           | 680                                                                           | 8,470                                                                               |
| Kentucky                  | 9,785                                                                           | 932                                                                           | 10,500                                                                              |
| Louisiana                 | 26,948                                                                          | 2,583                                                                         | 10,430                                                                              |
| Maine                     | 1,009                                                                           | 123                                                                           | 8,200                                                                               |
| Massachusetts             | 786                                                                             | 24                                                                            | 32,750                                                                              |
| Michigan                  | 32,249                                                                          | 2,217                                                                         | 14,550                                                                              |
| Minnesota                 | 13,361                                                                          | 1,179                                                                         | 11,560                                                                              |
| Mississippi               | 5,623                                                                           | 589                                                                           | 9,550                                                                               |
| Missouri                  | 13,408                                                                          | 1,376                                                                         | 9,740                                                                               |
| Nebraska                  | 3,636                                                                           | 417                                                                           | 8,720                                                                               |
| New Hampshire             | 612                                                                             | 61                                                                            | 10,030                                                                              |
| New York                  | 132,721                                                                         | 9,348                                                                         | 14,130                                                                              |
| North Carolina            | 18,379                                                                          | 1,793                                                                         | 10,250                                                                              |
| North Dakota              | 1,611                                                                           | 183                                                                           | 8,800                                                                               |
| Ohio                      | 24,638                                                                          | 2,420                                                                         | 10,190                                                                              |
| Oklahoma                  | 4,546                                                                           | 547                                                                           | 8,310                                                                               |
| Oregon                    | 11,302                                                                          | 960                                                                           | 11,770                                                                              |
| Pennsylvania              | 7,406                                                                           | 667                                                                           | 11,100                                                                              |
| South Carolina            | 11,226                                                                          | 1,190                                                                         | 9,430                                                                               |
| South Dakota              | 1,668                                                                           | 171                                                                           | 9,750                                                                               |
| Tennessee                 | 7,699                                                                           | 801                                                                           | 9,610                                                                               |
| Texas                     | 26,709                                                                          | 3,107                                                                         | 8,440                                                                               |
| Vermont                   | 16                                                                              | 2                                                                             | 8,000                                                                               |
| Virginia                  | 21,919                                                                          | 2,081                                                                         | 10,530                                                                              |
| Washington                | 16,851                                                                          | 1,481                                                                         | 11,380                                                                              |
| West Virginia             | 3,019                                                                           | 400                                                                           | 7,550                                                                               |
| Wisconsin                 | 21,357                                                                          | 1,903                                                                         | 11,220                                                                              |

<sup>1/</sup> Local Total.

(Source: U.S. Bureau of Census, and LEAA, Expenditure and Employment Data for the Criminal Justice System, 1971-72, GPO, 1974.)

may be so deflated that in order to spare a patrolman for special detail, he would have to be purchased in total. Thus, even though the billing rates appear low, the added expenses may be extreme.

On the other hand, 60 percent of the B lakes are located in the northern and northwestern states. While the police costs in these areas would be higher, the amount of service necessary is lower than the A lakes.

Based on the field visits, in this study, and previous management studies with local law enforcement throughout the country, the project team was able to design a base upon which to estimate various law enforcement costs in relation to the manpower necessary to sufficiently meet the standard level of service established for Corps of Engineers lakes. The following table reflects these costs estimates:

LOCAL LAW ENFORCEMENT COSTS FOR SERVICE AT CORPS LAKES

| Class of Lake              | Hours of Seasonal Service | Cost of <sup>1</sup> Seasonal Service | Expenses Mileage <sup>2</sup> 12c | Cost for <sup>3</sup> Remainder of Year | Total       |
|----------------------------|---------------------------|---------------------------------------|-----------------------------------|-----------------------------------------|-------------|
| Urban A Lakes <sup>2</sup> | 138,684                   | \$1,088,669                           | \$ 88,128                         | \$ 51,000                               | \$1,227,797 |
| Rural A Lakes              | 189,024                   | \$1,442,253                           | \$146,860                         | \$154,000                               | \$1,743,113 |
| B Lakes                    | 90,636                    | \$ 743,215                            | \$ 66,334                         | \$ 62,250                               | \$ 871,799  |
| Totals                     | 418,344                   | \$3,274,137                           | \$301,342                         | \$267,250                               | \$3,842,729 |

<sup>1</sup>Cost estimates include 50 percent overhead factor plus administrative costs and employee benefits.

<sup>2</sup>This class includes the unclassified lakes.

<sup>3</sup>May have to pay expenses to retain patrol on a sufficient calls for service basis. This is especially true in rural areas.

Thus, at a minimum, it would appear that local law enforcement expenditures would be nearly \$4 million, with the majority of the money being expended during the peak use season.

The selection of this alternative carries with it a number of advantages and disadvantages as follows:

Advantages of Sub-Alternative III-A

- Local law enforcement agencies are, by the fact of their presence, the most intimately familiar with problems associated with their locales and the lake.
- Local police are most frequently involved in the welfare of local constituents and familiar with the areas in question.
- These agencies are trained and maintain full police authority as opposed to most special or private police and some Federal law enforcement agencies.
- The idea of additional funds for the improvement of basic capabilities, equipment, and staff levels would be most appealing to many local law enforcement agencies.
- As most visitors to Corps projects are from the local areas, problems at the lake will be considered local problems rather than problems specific to the Corps itself.
- Lines of communication and reciprocal reporting between the Corps and the local police would be improved.
- Since the local police are being paid directly for their service, the Corps can be more assured of immediate response when needed and of required surveillance.
- The Corps will not be required to develop its own specific law enforcement contingent or add additional administrative support and, therefore, will avoid unnecessary duplication of services, and the organizational turmoil associated with developing this capacity.
- Relations between the Corps and the communities in which lakes are situated will be benefited due to the explicit recognition which the subsidy program will give to the joint nature of the local law enforcement problem.
- Centralized response will be insured to assist the lake user in case of emergency.

- Local police have access of support services (e.g., dispatching, detention).
- Law enforcement support and subsidy can be decreased when not in full use (e.g., off-season).
- Response capability from direct contact by campers.

#### Disadvantages of Sub-Alternative III-A

- For the Corps this solution to the problem of law enforcement is very expensive and incurs an added expense for services which are currently provided on a cost-free basis.
- It will be difficult to ensure the accountability of local police officers to Corps project managers with regard to the level of services requested and the level provided.
- There will be little uniformity of service on a national level, as this will vary with regard to the type and adequacy of law enforcement agencies at the local level, and this may adversely affect the recreation user.
- Local law enforcement agencies are often among the least well-equipped and trained. Adequate service in some cases may require more extensive expenditures and operational alterations than estimated.
- Many local law enforcement agencies are not required to undertake 400 hours basic training.
- Increase in local court caseload.
- There is little to ensure that subsidized service will be consistently utilized by local departments for the Corps lakes.
- Local law enforcement agencies may feel that they have an obligation or a duty to participate in Corps policy decisions. These may become apparent in situations involving the use of Corps lands (e.g., the use of public use areas for special events such as "rock" concerts).
- The level and quality of service may vary as a new sheriff is elected or a new police chief appointed.
- At a great many lakes the primary law enforcement officer in the surrounding area is a sheriff. These are constitutional or elected officers and are autonomous in comparison to a police chief who is answerable to a mayor or indirectly through a city council or county commissioners. In terms of subsidy this

means that, in the case of the county sheriff, the Corps will have to negotiate directly with the sheriff and will be almost completely reliant upon his personal attitudes and volition toward the delivery of service.

- Contractual arrangements may have to be developed with more than one agency in situations where the lake borders several jurisdictions. This would serve to compound all the previously mentioned problems associated with accountability and service delivery.
- In some cases, local law enforcement and local justices may not wish to "penalize" their constituents as extensively as the Corps deems necessary.

A possible solution to the multi-jurisdictional problem at the lakes is to negotiate with the local sheriffs and have one jurisdiction vested with special police powers or deputized by each of the other jurisdictions. This would be the easiest method, however, local politics may negate this attempt.

In order to gain a larger perspective of utilizing police agencies, the next alternative will evaluate the use of state police and agencies.

#### Sub-Alternative III-B. Subsidy of State Level Law Enforcement

##### Discussion

Sub-alternative III-B is essentially the same as the previous alternative except that it is aimed at the subsidy of state level law enforcement rather than that available through the localities. State level law enforcement is available through the various agencies of the State Police, State Highway Patrol or State Conservation Agencies. The advantages and disadvantages of this alternative are in many cases similar to those previously discussed, although with some significant differences.

##### Cost

One of the immediate differences is cost. While the previous table, in terms of hours of service to be performed and geographic weighting of expenses holds true with state agencies, their attendant overhead due



in large to an amplitude of support services, is much higher than local law enforcement. While the state agencies have the experienced manpower to allocate "residency" officers on a contractual basis, they also cost approximately 40-50 percent more than local police and sheriff's department. Thus, based on the previous table, the same level of service, contracted through state law enforcement agencies would cost between \$5.6-\$6 million.

While this cost, on the surface, appears extensive, it must be remembered that this is still almost 50 percent less than the total current costs of law enforcement and visitor protection being expended at Corps lakes. The main reason for this substantial cost benefit is that a single agency contract would eliminate the duplicated and overlapping efforts and services being extended at the projects. As the study team found in the field visits, there are as many as 10-12 different law enforcement agencies providing various degrees of service on and around the lakes.

Subsidizing one agency for continued, regular service, while it may exceed the Corps present expenditures, would be most beneficial to the local taxpayer and recreation user.

An evaluation of this sub-alternative raises the following points:

#### Advantages of Sub-Alternative III-B

- These agencies generally have total jurisdiction over law violations throughout the state irrespective of county or municipal boundaries. This will allow for a single contractual arrangement with an agency that can perform all law enforcement functions at the lake(s) regardless of the number of jurisdictions which are involved.
- State level law enforcement agencies are typically the most sophisticated in terms of training, equipment, and support services and are accustomed to the enforcement of laws of a geographic basis.

- State agencies are characteristically the best capable to recruit new personnel which would be required for operations at the one or more Corps lakes in the state.
- Concentration of law enforcement services through one centralized agency will allow the Corps to coordinate reporting and recording of crime data at a single level.
- Communications and information exchange between a state level agency will be more efficient than through many individual agencies.
- Law enforcement services will be more uniform throughout the United States where the number of agencies administering law enforcement are reduced.
- The continuity of services through state agencies is more ensured than they are at the local level where organizational stability is less defined.
- Use of a state level agency will be more cost effective in that these agencies will require less extensive start-up expenditures. All for example maintain 24-hour dispatch capability and sufficient support personnel to accommodate additional sworn personnel without the level of outlay that would be demanded by a number of local agencies which may require additional equipment or personnel.

#### Disadvantages of Sub-Alternative III-B

- More costly than using local law enforcement.
- State level agencies are less directly involved in the nuances of local law enforcement problems and are less likely to be familiar with the local populace and their particular desires.
- As in the case of local law enforcement officers, there is no complete assurance that subsidized personnel will always be utilized exclusively at the Corps lakes.
- Where state agencies do not maintain district barracks or other local offices, there will be a problem of reporting crime by the visiting public at Corps recreation areas and a delay in dispatch and response time.
- The tendency or perceived duty of state level law enforcement agencies to direct policy to Corps recreation areas may persist even at this level. This should be less prevalent at the state level, however, in that local interest groups will be weighted in the perspective of total state policy with regard to law enforcement assistance to the Corps.

While this alternative maintains some of the disadvantages cited previously with regard to the subsidy of local law enforcement, their magnitude and variation is significantly reduced. The primary advantage of state subsidy involves the reduced administrative problems which this arrangement will mean for the Corps, the increased uniformity of service, and increased capacity to provide adequate levels and quality of services, and the greater tendency of state agencies to account for services provided, as many of them are currently involved in contract services with other agencies.

#### Sub-Alternative III-C. Subsidy of Private Police

##### Discussion

While the major portion of police services in the nation are provided by public agencies, the private sector has been recently increasing. A current study noted that 36 percent of all security personnel were employed in the private sector.<sup>1</sup> The study also reflected that in 1969 there were seven private security employees for every ten public policemen in the country.

The increased demand for private security, has obviously been in response to increased crime and vandalism, but more significantly, the cost of private guards is far less than purchasing some of the expensive technical security devices flooding the market as a result of pressure from insurance companies.

In spite of this fact, even though local governments spend over \$5 billion a year for police protection, only a small percentage of this expenditure finds its way to private security. The results of a 1972 survey indicate that none of the cities queried had contracted with a private firm for total police services.<sup>2</sup>

One study, however, uncovered the existence of a contracted agreement between a private security firm and a Petersburg, Florida, parks and

recreation area for limited patrol services. Evaluation of the service was positive. Nonetheless, the contract was dropped after two years when the city installed a sonic alarm system.

Thus to qualify the previous statement, in the long run, with continued research and development in technical security, private security manpower may become obsolete.

#### Costs

Before describing the advantages and disadvantages for Corps use of private police, the costs should be discussed. The survey team found that the average billing rate that private security proposed to provide contract services for federal and state governments was \$5.50 per hour. This figure includes overhead, and employee benefits. Thus estimates for the use of private security forces at Corps lakes would be as follows:

|                            |               |
|----------------------------|---------------|
| Additional Personnel       |               |
| 418,344 hours of service   |               |
| @ \$5.50/hour              | = \$2,300,892 |
| Additional Expenses        |               |
| 2,511,183 miles @ 12c/mile | = \$ 301,342  |
| Incidental Expenses*       |               |
| @ \$200                    | = \$ 116,800  |
| Total                      | \$2,719,034   |

Based on this assessment, the cost of private security police to provide service to meet the established standards at Corps lakes would be approximately \$2.7 million. Weighed against this figure, the specific advantages and disadvantages of the sub-alternative can be discussed.

#### Advantages of Sub-Alternative III-C

- Lower cost than local or state agencies.
- Organizationally responsive to Corps policy.

\*Other expenses such as uniforms, patches etc., may have to be purchased initially, but this item could be calculated into the overhead.

- Flexible: can be retained only when needed.
- Positive evaluation from specific recreation case experience.
- Minimal administrative problems for the Corps.
- On-site patrol and security ensures immediate response.

#### Disadvantages of Sub Alternative III-C

- The Corps will still have to spend time and effort to supervise these security personnel.
- Private security police possess no more police power than the current rangers.
- If the Pinkerton Act (1893) is still applicable, then the employment of private police by the U.S. Government is illegal (5 U.S.C. 3108).
- Private police may not have a vested interest in resource protection.
- Private police may not relate to the recreation perspective of the visitors.
- Most states only regulate the owners of private agencies and have no control over quality of employees.
- Private police may not emanate Corps objectives and policy.
- Visitors may not be able to receive park information (e.g. recreation information, first aid, tourist attractions, etc.) from these personnel.
- Private police would still have to rely on local or state law enforcement for backup and support services.
- May cause dissension from local law enforcement.
- "The typical private guard is an aging, white male, poorly educated, usually untrained, and very poorly paid. The total pre-work training, plus initial on-the-job training, is less than two days for many private security workers."<sup>3</sup>

This final disadvantage rather sums up the entire discussion. However, the most significant deterrent to implementing this alternative, if chosen, would be the Pinkerton Law, which was designed by Congress to prevent a national police force.

The final sub-alternative in this section involves discussion of the feasibility of engaging the law enforcement services of another government sister agency through administrative cooperation.

#### Sub-Alternative III-D. Subsidy of Other Federal Law Enforcement Services

##### Discussion

At present there exists a number of Federal level law enforcement agencies which could be considered for use at Corps of Engineers lakes, such as the U.S. Marshals, Government Services Administration Police, and the National Park Service. In all these cases law enforcement organizations and administrative operations have been established which could conceivably be expanded to meet the needs of the Corps. This approach carries the same factors which must be considered in the way of advantages and disadvantages that were considered for sub-alternative II-B.

##### Cost

The cost of this alternative may differ slightly because of the possibility of administrative trade-off's between agencies; however, the basic cost of a straight reimbursement for services because of the extremely high government overhead, and possible per diem and travel expenses, in all probability, would be \$2-3 million dollars more than contracting with state agencies. This would raise the cost of using any Federal law enforcement services to \$8-9 million.

##### Advantages of Sub-Alternative III-D

- Establishment of administrative arrangements for services with one or more of these agencies would be relatively simple.
- A Federal level law enforcement agency would be a more suitable approach from the perspective of administration and due to the national scope of the Corps law enforcement needs.
- These agencies are experienced in the administration and delivery of law enforcement services; and NPS has the particular advantage of experience unique to the recreation environment.

- These agencies have better support services, although the timeliness of this support is questionable.
- No new administrative mechanisms to be implemented by the Corps for law enforcement.
- No necessity and burden of maintaining criminal records.
- Visitors will feel protected if adequate service is supplied.

#### Disadvantages of Sub-Alternative III-D

- Manpower ceilings for these Federal agencies may not allow the assumption of added responsibility for Corps law enforcement.
- Costly to the Corps.
- The role and mandate of some of these agencies may preclude their use unless a significant amount of administrative realignment is performed and some enabling legislation passed. These are discussed in turn:
  - The U.S. Marshal's duties and power consist of attendance upon Federal Courts, service of the Federal process, and transportation of Federal prisoners (Chapter 37, Title 28 U.S. Codes, Section 569). These officers are not specifically trained in preventive law enforcement, as well, and would require a considerable amount of retraining. Lately the U.S. Marshal Service has developed a special operations group to quell disturbances on Federally owned property. However, their use is highly restricted and very expensive for the type of service that is being considered for Corps lakes.
  - The G.S.A. may be restricted in their usage due to U.S. Codes (40 USC, 318) which state that the G.S.A. can appoint guards on Federal lands with concurrent or exclusive jurisdiction. This may require change in the G.S.A. charter to serve Corps lakes which have proprietorial jurisdiction.
  - The Federal Bureau of Investigation is investigatory in purpose and is not equipped or prepared to provide general preventive law enforcement on a widescale basis.
  - The National Park Service jurisdiction would require some form of alteration to incorporate land owned by the Corps of Engineers. While the National Park Service is the most likely candidate for the assumption of recreation law enforcement duties, their willingness to accept this massive additional burden is highly questionable.

- Regardless of the agency which might be selected, there is a significant propensity involved in this approach for policy-making decisions to be usurped by the agency providing law enforcement services to the Corps. In this respect there is a significant risk that the Corps will lose a degree of internal control with regard to administration, organization, and planning.
- On a procedural level there could be considerable problems in terms of recruiting, screening and training a large body of additional persons for any one of these federal agencies and deploying them throughout the United States on a seasonal basis.
- Costs in terms of salaries and fringe benefits for these individuals would be greater than those of either state or local law enforcement agencies.
- Federal magistrates caseload would increase.

#### Summary

The use of subsidized law enforcement services at Corps of Engineers lakes is a generally prudent approach. Subsidized law enforcement allows for the strategic utilization of personnel in accordance with the level and nature of the law enforcement needed in any one particular area without incurring the administrative and organizational problems associated with these additional responsibilities. The point to be emphasized in this approach involves the fact that a significant number and variety of law enforcement agencies and personnel exist at present with established capabilities and experience. Utilization of these established agencies in any form avoids unnecessary and costly duplication of effort and overlap of power and authority. As previously indicated, however, there are a number of varieties of this approach which can be utilized, some of which are obviously more amenable to the purposes and needs of the Corps than others. The utilization of some form of subsidized law enforcement seems to be an approach worthy of close consideration.

A final point to be considered in terms of cost and adequate protection is that if the decision is made to utilize any of these subsidy alternatives, the Corps would be remiss in terms of the duties established in the standards chapter if they did not increase the ranger



manpower in addition to adding supplemental law enforcement. The manpower increase could be applied according to either plan suggested previously.

The point to be made is that this ranger increase, to protect resources, visitors, and assist law enforcement, should be considered both from the cost-consideration and overall program effectiveness perspective.

ALTERNATIVE IV: INCREASE THE AUTHORITY AND LAW ENFORCEMENT RESPONSIBILITIES OF THE CORPS OF ENGINEERS

Discussion

The objective of this alternative is to utilize existing Corps of Engineers personnel to provide law enforcement and visitor protection services at recreation projects under Corps control. There are basically three sub-alternatives associated with this major alternative:

- IV-A Grant full police powers to enforce federal and state laws to Corps of Engineers rangers.
- IV-B Increase the utilization of existing Corps of Engineers ranger's authority.
- IV-C Create and staff a separate Corps of Engineers Police Force to provide visitor protection and law enforcement services at Corps lakes.

A total of 320 rangers or equivalent are permanently assigned to the recreation resource lakes in the Class A and B category. Approximately, 256 of these individuals possess citation authority and have completed some type of three to eight-day citation training program.

In addition to these 320 rangers, a total of 615 seasonal employees are hired during the summer months. While these individuals are uniformed, the vast majority of them lack authority to issue citations.

From a law enforcement perspective, the rangers are very limited in their police powers being able to utilize only the power of administrative regulations and citizen's power of arrest, a right vested in all citizens, under certain conditions.

Typical duties of ranger personnel include the following:

- Prevent despoilment of natural resources as through timber poaching or unauthorized construction.
- Prevent private capture of public land.

- Prevent filling or grading of easement land.
- Improve project environment through tree and vegetation planting.
- Establish and mark out zones to prevent hazardous conflict in uses.
- Prevent unauthorized human habitation or camping.
- Prevent and control unauthorized vehicular traffic across project lands.
- Review concessionaire operations to prevent unauthorized uses.
- Public education and interpretation of project resources.
- Fish and wildlife management.
- Coordination with other state, federal and local agencies.
- Recreation management.
- Forestry management.
- Surveillance of project resources.
- Provision of emergency services.

As noted, these rangers are uniformed, and those with citation authority wear badges. None of the Corps rangers are armed with any sort of weapon. They are not authorized to make physical arrests. The limits of their authority extend to the issuance of warnings and citations for violation of administrative regulations.

Under the concept of proprietorial jurisdiction, the Corps ranger has no police powers unless he is appointed as a special police officer or sworn as a deputy sheriff in the county in whose jurisdiction the project is located. However, he is forbidden by Corps ER 190-2-3 to exercise such authority while on duty as a federal employee.

In effect, a park ranger, who is not deputized or appointed a special police officer, must act as a private citizen in effecting felony arrests for crimes under the exclusive jurisdiction of state courts.

This places the ranger at a serious legal disadvantage since he is not clocked with the powers of a state peace officer and does not have the same legal protection as those peace officers (a point clearly discussed in Chapter 10). In short, aside from Title 36 citation authority, the ranger is no different from any other citizen, when it comes to law enforcement authority.

Further, while we cannot cite exact percentages, it is our distinct impression that the vast majority of Corps rangers have no particular desire to function as full-scale law enforcement officers.

Most rangers, based on the consensus of our field interviewers and some rare studies in the literature, perceive themselves as outdoorsmen, scientists, environmental interpreters, naturalists, recreation managers and resource protectors. While many have varied academic and employment backgrounds, a majority of the rangers are trained in the physical or natural sciences. Seasonal rangers are frequently school teachers and college students who see the job as a means to enjoy the outdoors, further their careers, and supplement their income.

In short, while some of the rangers would certainly make excellent law enforcement officers, the vast majority have neither the background, inclination, or aptitude to perform the unique functions of a law enforcement officer.

The specific attributes deemed desirable in an officer with full law enforcement powers-aside from the obvious ones of physical ability, specialized training, honesty and dedication, include the following:

- Ability to react instantly after long periods of monotony
- Ability to exhibit initiative, to use judgment and imagination in problem solving, in other words, to exhibit "street sense";
- Ability to demonstrate mature judgment;
- Ability to communicate orally and in writing;

- Ability to act effectively in extremely divergent intrapersonal situations, in other words, the ability to deal with people ranging from criminal to non-criminal;
- Ability to endure physical and verbal abuse;
- Ability to exhibit a professional and self confident manner;
- Ability to skillfully question participants of, as well as witnesses to, a crime or incident;
- Ability to take charge of situations, particularly emergency situations, such as a crime or accident;
- Ability to maintain a balanced perspective even though constantly exposed to the worst in human behavior;
- Ability to exhibit courage;
- Ability to work under loose supervision;
- Ability to tolerate stress in its many forms.

These are the minimum qualifications for the patrol officer position based on a detailed study of field performance.<sup>4</sup> It is clear that only select individuals currently in the Corps ranger program will be able to meet such standards.

However, the Corps rangers play an important part now, and we expect they will play an even more important role in the future, in the total Corps Visitor Protection Program. Specifically, the ranger will continue to be responsible for the following elements in any type of visitor protection program:

- Reduction of littering and pollution of natural resources through enforcement and public education.
- Recreation and "people" management.
- Protection of wildlife.
- Deterrent to trespass, theft, or destruction of government property and project resources.
- Emergency services (non-crime related).

- Encroachment enforcement.
- Prevention of man-caused fires.
- Enforcement and prevention of minor traffic offenses (e.g. parking).
- Law enforcement and visitor protection problem identification and planning for improvement.
- Coordination with law enforcement resources.
- Public information and education.

In short the ranger is an integral part of visitor protection and should receive increased priority in the overall Corps recreation program.

It is essential before discussing the sub-alternatives, to describe the role of the Provost Marshal in the Corps of Engineers. The Engineer Provost Marshal's Office was established in 1952 and a provost marshal was placed in each of the Division Offices of the Corps of Engineers. The provost marshal's responsibilities include:

- Advises the Commander concerning law enforcement matters;
- Formulates and maintains an effective crime prevention program;
- Exercises staff supervision over the Corps ranger training program;
- Maintains records of offenses at the Corps projects.

It is apparent from this partial list of the provost marshal's responsibilities that he is charged with the supervision of any law enforcement program in the Corps of Engineers. The policies of OCE in terms of to what degree the provost marshal performs his duties are not clear, however, it was obvious from all the site visits, that the provost marshals currently maintain a very low profile in the visitor protection program at the lakes.

The organizational structure clearly suggests that if a more aggressive law enforcement function is performed by the Corps of Engineers,

that this function should be supervised by the provost marshals. This may create an obvious management problem if the ranger is answerable to the lake manager while supervised by the provost marshal. If this were the case, a great deal of coordination would be needed for the program to function effectively, if at all.

With this discussion as background, each of the three sub-alternatives will be evaluated in terms of their advantages and disadvantages.

Sub-Alternative IV-A: Grant Full Police Powers to Enforce Federal and State Laws to Corps of Engineers Rangers

Discussion

Under this sub-alternative, existing ranger personnel at Corps of Engineers lakes would be vested with full-police power to enforce all relevant state and federal laws at the project. This could be done one of three ways. The first way would be through a state by state law change that would define Corps rangers as State Peace Officers. The second way would be to give the rangers the authority of Deputy U.S. Marshal's. This approach would, of course, require the approval of the specific U.S. Marshal in whose jurisdiction the lake is located. The third way would be to have congress pass a statute to allow the Secretary of the Army to expand the current park regulations to cover serious misdemeanors and felonies.

Cost

Granting full police authority to the permanent rangers would eliminate the requirement of obtaining additional peace officers at the lakes. The permanent rangers would be providing a dual purpose. In this case, if the minimum number of rangers needed to fulfill the standards for effective visitor protection were added, this would exceed the required number of hours of service needed by peace officers at the lakes. Thus, the addition of 278 permanent rangers would raise the total number of rangers to 598 which would now act in a dual role as peace officers.

The cost of this alternative has been assessed from information from the National Park Service, U.S. Forest Service, and other recreation agencies throughout the country. The new costs for this alternative are as follows:

|                                                                             |   |                    |
|-----------------------------------------------------------------------------|---|--------------------|
| Additional Personnel GS-5 level and 30% benefits @ \$10,920 per man         | = | \$3,035,760        |
| *400 hours of basic law enforcement training @ 2,500 per man                | = | \$695,000          |
| <b>**Additional Equipment</b>                                               |   |                    |
| a. handguns, handcuffs, mace, nightsticks, ammunition, etc. @ \$200 per man | = | \$55,600           |
| b. 190 full-equipped vehicles (one per lake) with radios @ \$4,500 each     | = | \$855,000          |
| Additional Expenses 2,511,183 miles @ 12c/mile                              | = | <u>\$301,342</u>   |
| <b>Total</b>                                                                |   | <b>\$5,797,702</b> |

\*Training costs are based on a tuition equivalent. These costs will increase if per diem is necessary.

\*\*Anticipated changes in equipment (e.g. use of scooters, horses, etc.) cannot be budgeted.

It may be anticipated that law enforcement indemnity insurance will increase the cost of this alternative so that the total cost exceeds \$6.5 million. It should be emphasized that these costs represent estimates for preliminary consideration. The advantages and disadvantages of this approach are discussed below.

#### Advantages of Sub-Alternative IV-A.

- Uniformity of service and enforcement.
- Uniformity of training.
- Comparative cost to subsidy alternatives.
- Half of the personnel are already on the job.



- Broader use of existing manpower and flexibility of functional activities.
- Autonomous selection of officers.
- Many of the new peace officers will be familiar with Corps recreation-resource management policy.
- Many will already be dedicated to enhancement of project recreation and resource utilization.
- Many will already be familiar with environmental and resource protection laws related to Corps lakes.
- Officers will be responsive to the needs of Corps project managers.
- Some will have already received a minimal level of training.
- Many of the officers will be familiar with project area and have contacts with local law enforcement agencies.

Disadvantages of Sub-Alternative IV-A

- Existing personnel may lack basic qualifications and aptitude for the performance of law enforcement functions.
- New recruits may clash with recreation objectives.
- Potential loss of the desired "good guy" image of the ranger.
- Degradation of recreation-resource management functions at the projects currently performed by Rangers.
- Creation of a new job category on the Federal level.
- Reorientation of recruitment policies.
- Transportation of prisoners may escalate costs and result in increased law enforcement duties.
- Uncertainty of obtaining statutory approval of this option by the Federal government or State agencies.
- Law enforcement personnel reporting to civilian park manager who may lack understanding of the law enforcement function.
- Inadequate law enforcement support functions at the project.
- May conflict with role of the Provost Marshal.

- Will require creation of law enforcement infrastructure within the Corps to assure that integrity is maintained.
- Places Corps employees in dangerous positions, opens possibility of litigation for brutality, shootings, etc.
- Definite possibility that recruiting may tend more towards law enforcement type employees if crime and vandalism increases.
- Increased workload for the Federal court system.
- If locally deputized, would have to rely on state and local courts for representation of cases.
- Definite possibility of internal friction and morale problems at Corps projects between new enforcement personnel and current employees due to opposing value orientations.
- Possible loss of existing public relations orientation sought by Corps management and concomitant loss of public support.
- Overtime required to compensate enforcement personnel for court appearance.

Sub-Alternative IV-B: Increase the Utilization of Existing Corps of Engineers Ranger's Authority.

Discussion

This sub-alternative is designed to provide ranger personnel with increased enforcement power. Specifically, it envisions that ranger personnel have the means to deal with minor but frequently occurring offenses such as disturbing the peace. Grant of such authority could be handled administratively. The Secretary of the Army has the power by law to implement this sub-alternative without resorting to legislation.

It should be made clear that this sub-alternative does not suggest that rangers be given any more authority than their current citation power. The suggestion is to increase the coverage and activity of the current citation program. Citation coverage should be broadened to gain complete coverage over the protection of natural resources (this point is discussed in more detail in Chapter 18) and to have impact on minor order-maintenance activities.

An important point, however, is that rangers do not have the power of arrest under this sub-alternative, thus access to sworn law enforcement officers is still necessary. But, as an alternative, it is suggested that rangers utilize their authority to expel ungovernable individuals from the project premises. With the assistance of sworn law enforcement and reliance on imposing trespassing violations, this use of enforcement authority would be very effective in eliminating troublesome situations without reliance on introducing the subject into the criminal justice system. It should be noted that use of this measure should only be attempted after clear policy has been defined and regulated by OCE in terms of the discretionary employment of this measure.

Again, however, if the ranger is being asked to enforce more stringent order-maintenance laws, he is being asked to place his personal safety on the line. It would be irresponsible on the part of the Corps to do this without giving him the means to protect himself. In short, if there is not access to sworn law enforcement the ranger should be armed to successfully implement this sub-alternative. However, in this quasi-law enforcement status, it would be even more irresponsible to provide the ranger with a gun. Another alternative would be to provide him with less-lethal weapons (e.g. mace, ultrasound devices, club, jack, etc.). These less-lethal weapons are not particularly reliable in experienced hands, much less when used by inexperienced individuals. Additionally, the term "less-lethal" is used deliberately. There is always a risk of death or serious injury when any weapon is employed. Thus, successful implementation of this sub-alternative appears to be dependent on the access to sound, full-powered law enforcement.

#### Costs

Costs for implementing this sub-alternative would be roughly one-third less than granting full police power. The difference lies in less required training and equipment. The manpower requirement is still the same for additional rangers.

The costs are estimated as follows:

|                                                                        |                     |
|------------------------------------------------------------------------|---------------------|
| Additional Personnel GS-5 level<br>and 30% benefits @ \$10,920 per man | = \$3,036,760       |
| 50 hours of basic training<br>@ \$313 per man                          | = \$ 87,014         |
| Additional Equipment 80<br>radio-equipped vehicles<br>@ \$4,600 each   | = \$ 320,000        |
| Additional Expenses<br>1,255,592 miles @ 12c/mile                      | = <u>\$ 150,671</u> |
| Total                                                                  | \$3,593,445         |

With the addition of insurance costs, implementation of this alternative will exceed \$4 million.

Advantages of Sub-Alternative IV-B:

- Can be accomplished administratively.
- Provides the Corps with the capability to respond to one of the most frequent type of law enforcement problems at its lakes.
- Can be accomplished by individuals already employed by the Corps.
- Similar advantages to those discussed for sub-alternative IV-A.
- Does not expose Corps rangers to serious felony cases.
- Costs to implement are not overwhelming.
- Control rests with the Corps, situations can be handled utilizing discretion to accommodate Corps policy and goals.
- Assures recreation users that Corps can protect them from annoying experiences that detract from enjoyment of recreation.

Disadvantages of Sub-Alternative IV-B.

- Corps must still rely on outside agencies for serious case processing.
- Requires an extension of administrative power.

- Ranger still in a dual and often conflicting role of "good guy" and law enforcement officer.
- Puts the ranger in a quasi-law enforcement position without sufficient "clout."
- Places rangers in dangerous situations.
- Similar disadvantages as those associated with sub-alternative IV-A.
- Cases must be presented in state and local courts with attendant overtime costs.
- Impractical to give this power to temporary employees who may have to return to court once employment is terminated.
- Does not provide sufficient visitor protection.

Sub-Alternative IV-C: Create and Staff a Separate Corps of Engineers Police Force to Provide Visitor Protection and Law Enforcement Services at Corps Lakes.

Discussion

Implementation of this sub-alternative will require congressional approval. The most feasible approach is to use the Aqueduct Police Force as a base and expand its scope of authority to extend to all Corps projects. This sub-alternative would be implemented by the staffing plan for sworn peace officers presented in a previous section.

Cost

This is obviously the most costly alternative. If this latter approach is taken, a minimum force of 584 sworn officers will be needed. Together with required support personnel, equipment and insurance, the implementation of this alternative would exceed \$11 million. Some costs could be saved however, if the Consolidated Federal Law Enforcement Training Center was utilized for training. The applicability of the training to the Corps problems is questionable. The cost breakdown would be as follows:

|                                                             |                      |
|-------------------------------------------------------------|----------------------|
| Additional Personnel GS-5 level and 30% benefits @ \$10,920 | = \$6,377,280        |
| 400 hours of basic law enforcement training @ 2,500 per man | = \$1,460,000        |
| Additional Equipment                                        |                      |
| a. handguns, etc. @ 200 per man                             | = \$ 116,800         |
| b. 190 radio-equipped vehicles @ 4,500 each                 | = \$ 855,000         |
| Additional Expenses                                         |                      |
| 2,511,183 miles @12c/mile                                   | = \$ 301,342         |
| Administrative Support Costs                                | = <u>\$1,000,000</u> |
| Total                                                       | \$10,110,422         |

#### Advantages of Sub-Alternative IV-C

- Complete Corps control of policy, procedures, personnel calibre, pay and operational methods.
- Responsive to needs and levels of authority in proposed or existing legislation on a national basis.
- Completely eliminates jurisdictional problems as cases can be presented in U.S. Courts.
- Provides a substantial deterrent to violations at Corps projects.
- Provides uniformity of approach at all Corps projects.
- Provides an excellent supplement to ranger authority as part of an integrated visitor protection program.
- Provides continuity of direction for enforcement personnel.
- Enables Corps to successfully implement recreation-resource policies without conflicting philosophies of law enforcement.
- Improves the existing level of visitor protection more than any other alternative.

#### Disadvantages of Sub-Alternative IV-C

- Extremely costly to implement.
- Questionable whether Congress will grant either adequate legislative authority or funds to implement.

- Creates a new and complex management problem for Corps decision-makers.
- Puts Corps employees in hazardous situations and exposes Corps to liability for officer actions.
- Will require a continual expansion of manpower and funding levels.
- Uncertain whether protection problems will increase or decrease.
- Creates a fragmented approach to the development of a unified federal policy for national visitor protection policy.
- Will inevitably create local-level political problems with sheriffs and police.
- Law enforcement agencies are difficult to control once they are firmly established; possible conflict with basic Corps recreation-resource management role.
- Difficult to design an adequate organizational format for law enforcement services within existing Corps structure.
- Difficult to justify the existence of this specialized force during the off-season.
- Creates management conflict with role of the Provost Marshal.
- Will still need to supplement current ranger force to reach adequate level for ranger responsibilities.

#### Summary

The implementation of sub-alternative IV-A appears to be the soundest approach for the Corps to autonomously control the law enforcement and visitor protection at the lakes. However, it cannot be emphasized enough that law enforcement is a serious endeavor with grave consequences for negligence or misjudgment. It is not the type of profession that one can be molded into if not inclined or predisposed to do such. The role conflict created from forcing someone into an unwanted position is self-defeating. These disadvantages must be given strong consideration before implementing this alternative.

ALTERNATIVE V. A COMBINATION OF ALTERNATIVES III AND IVDiscussion

Simply stated this alternative will extract and combine the most positive features from supplementing law enforcement assistance and increasing Corps visitor protection practices as described in sub-alternative IV-B.

The objective of this alternative is to use state law enforcement agencies for preventive patrol and apprehension of offenders, in addition to increasing the Corps ranger force to meet the levels recommended in Chapter 9. The Corps ranger's role would be to assist in implementing the goals which involve assisting law enforcement and protecting environmental resources and visitors. The use of Title 36 citation activity would be utilized as described in sub-alternative IV-B, better records would be kept, effective deterrence of crime achieved, and a number of other values met.

The basic advantage of this alternative is that rangers would not be law enforcement agents. Their role would encompass recreation-resource management and protection. State law enforcement agencies, either State Police, Highway Patrol or Conservation Agencies, would provide the necessary law enforcement. The Corps would still be responsible both financially and administratively, thus ensuring a complete visitor protection program.

Most of the other recommendations, described in the remaining chapters, such as increased training or improved park design, would be best accomplished under this alternative.

Cost

The cost of implementing this alternative will be presented according to the two plans for manpower improvement described in Chapter 9. The cost of using state agencies will remain constant in both plans.



The objective of plan Y is to maximize the availability of permanent rangers for each working shift. This plan involves the addition of 278 permanent rangers, which will provide a minimum of 4 rangers per A lake and one ranger per B lake (with "double-up" coverage). The cost is detailed below:

| <u>Plan Y</u>                                     |                     |
|---------------------------------------------------|---------------------|
| State Law Enforcement Subsidy                     | = \$6,000,000       |
| 278 Additional Corps Rangers<br>@ \$10,920        | = \$3,035,760       |
| 50 hours Corps training<br>@ \$313 per man        | = \$ 15,650         |
| Additional Equipment<br>190 vehicles @ \$4,000    | = \$ 760,300        |
| Additional Expenses<br>1,255,592 miles @ 12c/mile | = <u>\$ 150,671</u> |
| Total                                             | \$9,962,081         |

This total expense for effective coverage would more than double the Corps current ranger (permanent and temporary) personnel costs.

Plan Z involves a much higher level of coverage during peak usage with well-trained, seasonal rangers. This plan would decrease the ratio of recreation visitors-to-rangers from 240,000 visitor days per ranger to 100,000 visitor days per ranger at the A lakes. The B lakes ratio would drop from over 600,000 per ranger to 150,000 per ranger.

Implementation of plan Z would require the addition of 322 permanent rangers and 644 seasonal rangers. The costs for plan Z are as follows:

Plan Z

|                                            |   |                   |
|--------------------------------------------|---|-------------------|
| State Law Enforcement Subsidy              | = | \$6,000,000       |
| 322 Additional Permanent Rangers           | = | \$3,516,240       |
| 644 Seasonal Rangers                       | = | \$1,288,000       |
| 50 hours Corps training<br>@ \$313 per man | = | \$ 302,358        |
| Equipment and Expenses the same            | = | <u>\$ 910,671</u> |
| Total                                      |   | \$12,017,269      |

Plan Z is \$2 million more expensive than plan Y, but the added coverage from trained, supervised, seasonal employees would be well worth the difference.

Advantages of Alternative V

- State agencies generally have total jurisdiction over law violations throughout the state irrespective of county or municipal boundaries. This will allow for a single contractual arrangement with an agency that can perform all law enforcement functions at the lake(s) regardless of the number of jurisdictions which are involved.
- Corps roles and objectives concerning the provision of law enforcement and visitor protection will be clearly defined.
- State level law enforcement agencies are typically the most sophisticated in terms of training, equipment, and support services and are accustomed to the enforcement of laws on a geographic basis.
- State agencies are characteristically the best capable to recruit new personnel which would be required for operations at the one or more Corps lakes in the state.
- Can be accomplished with few administrative problems.
- Concentration of law enforcement services through one centralized agency will allow the Corps to coordinate reporting and recording of crime data at a single level.
- Communications and information exchange with a state level agency will be more efficient than through many individual agencies.

- Law enforcement services will be more uniform throughout the United States where the number of agencies administering law enforcement are reduced.
- Use of a state level agency will be more cost effective in that these agencies will require less extensive start-up expenditures. All, for example, maintain 24-hour dispatch capability and sufficient support personnel to accommodate additional sworn personnel without the level of outlay that would be demanded by a number of local agencies which may require additional equipment or personnel.
- Does not expose the Corps to serious felony cases or the concomitant problems such as prisoner transportation and detention.
- Assures recreation visitors that they will be adequately protected.
- Will best enable the Corps to implement the standards for visitor protection.

#### Disadvantages of Alternative V

- Costly to implement.
- Will require organizational commitment and alterations.
- There is no complete assurance that subsidized personnel will always be utilized exclusively at the Corps lakes.
- Subsidized law enforcement may attempt to direct Corps policy concerning visitor protection.
- Corps must still rely on outside agencies for serious case processing.

#### Summary

The costs to implement this alternative are expensive but the coverage provided would ensure visitor and resource protection. The manpower service rendered from this alternative would be highly adequate. The trade-offs in resource and visitor protection can be realized by comparing this expense to the current expense of crime and vandalism (costs due to losses from theft and damage; and law enforcement rendered) which is estimated at over \$25 million per year. It would be expected that implementation of alternative V (plan Y or Z) would significantly decrease

this \$25 million expense. Even adding the cost of the current Corps manpower expenses for visitor protection to this alternative would still remain approximately 40 percent below the current costs of crime and vandalism.

The primary point to be made is that implementation of this alternative would provide a clear mandate for defining the objectives of the Corps in law enforcement and visitor protection and would provide the best means to attain the standards established in Chapter 8.

SUMMATION OF ALTERNATIVES FOR THE ADMINISTRATION OF VISITOR PROTECTION  
AT CORPS OF ENGINEERS LAKES

In order to present a clearer picture of the various courses of action for decision-makers, this final section will summarize the alternatives presented for administering visitor protection at Corps lakes. Table 11-3 displays the myriad of alternatives and their associated costs and levels of service provided if implemented. This table should provide a useful cross-reference to assess the immediate feasibility of the alternatives.

TABLE 11 - 3  
ALTERNATIVES FOR THE ADMINISTRATION OF  
VISITOR PROTECTION AT CORPS OF ENGINEER LAKES

| Alternatives<br>for<br>Action | Expenditures for<br>Visitor Protection<br>Corps | State/Local                   | Level of Service<br>Provided at<br>Corps Lakes |
|-------------------------------|-------------------------------------------------|-------------------------------|------------------------------------------------|
| Current Expenses              | \$3 - \$4<br>Million                            | \$7 - \$10<br>Million         | Not Sufficient*                                |
| I                             | No additional<br>expenses                       | No additional<br>expenses     | Not Sufficient                                 |
| II-A                          | No additional<br>expenses                       | Possible added<br>costs       | Not Sufficient                                 |
| II-B                          | No additional<br>expenses                       | Reduction in<br>current costs | Not Sufficient                                 |
| II-C                          | Some added<br>expenses                          | Reduction in<br>current cost  | Sufficient**                                   |
| III-A                         | \$4 Million<br>additional                       | Reduction in<br>current cost  | Sufficient                                     |
| III-B                         | \$5.6 - \$6 Million<br>additional               | Reduction in<br>current cost  | Sufficient                                     |
| III-C                         | \$2.7 Million<br>additional                     | No additional<br>expenses     | Not Sufficient                                 |
| III-D                         | \$8 - \$9 Million<br>additional                 | Reduction in<br>current cost  | Sufficient                                     |
| IV-A                          | \$6.5 Million<br>additional                     | Reduction in<br>current cost  | Sufficient                                     |
| IV-B                          | \$4 Million<br>additional                       | No Additional<br>expenses     | Sufficient                                     |
| IV-C                          | \$11 Million<br>additional                      | Reduction in<br>current cost  | Sufficient                                     |
| V                             | \$10 - \$12 Million<br>additional               | Reduction in<br>current cost  | Sufficient                                     |

(Source: PRC/PMS)

\*Thus, the overall cost of crime and vandalism, which is in excess of \$12-\$17 million, will not be abated by this action.

\*\*Should have enough impact and deterrent effect to reduce the occurrence and cost of crime and vandalism.

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## Chapter 12

## IMPACT OF ALTERNATIVES ON THE COURT SYSTEMS

A. Introduction

The alternative policies presented for visitor protection and law enforcement will affect not only the resources, policies, and practices within the Corps but also the entire criminal justice community including the federal, state and local court systems. The various alternatives in effect may result in increased utilization of U.S. magistrates or increased use of local courts.

While security in the parks is a major factor in public confidence and support, the actual incidence of serious crimes as defined for the UCI 'Index' is low, except for reported larceny, and arrests for this offense are rare. The great bulk of cases generated at Corps projects will, therefore, continue to be classified as misdemeanors or minor and petty offenses and will impact state and local courts with jurisdiction over misdemeanors, or the system of U.S. magistrates. It is appropriate to consider the workload and cost impact of Corps enforcement on these judicial agencies, and other factors in the Corps relationship with the judiciary.

B. The Federal Court System

Since the passage of the Federal Magistrates' Act of 1968, all federal judicial districts use full and part-time magistrates to assist the judges in a variety of tasks. Part full-time magistrates are appointed to metropolitan district courts where they assist judges in a variety of legal tasks including warrants, arraignments and pre-trial



hearings. In smaller cities and rural areas, however, part-time magistrates are used primarily to dispose of misdemeanors and petty offenses. Law enforcement at Corps of Engineers projects typically impacts on the part-time magistrates, and it is among them that increased federal judicial costs will be incurred.

While the U.S. magistrate system is extensive, it represents only a small portion of federal judiciary outlays and offers a substantial savings in the overall cost of case handling. The maximum salary of a full-time magistrate is \$36,000 as against a district judge's salary of \$40,000 to \$50,000, and the cost to the Government of supporting a full-time magistrate is about half the cost of the salary, staff, and offices for a judge. For part-time magistrates the cost is even less. The maximum salary for a part-time magistrate is \$18,000, but some salaries are as low as \$300 and the average compensation including expenses is approximately \$4,000.<sup>1</sup> Salary and expenses are provided in approximate proportion to caseload. Part-time magistrates hold federal court as required, but, at a minimum, court is held once a month.

It is reasonable to expect that increased citation and arrest activity will impact the system of U.S. magistrates, where federal personnel are used to enforce federal statutes. One possible consequence is an increase in both citations and arrests. This will have an impact on the workload of U.S. magistrates, who dispose of minor offenses, and a lesser impact on the U.S. District Courts in the case of felonies and other serious offenses. A second possibility is no increase in federal arrests, reflecting a reliance on citations as the primary enforcement tool. In this case the workload of federal magistrates would be increased slightly, but the U.S. District Courts would not be affected.

Cost and workload impact on U.S. magistrates should be considered against several factors. First, the use of collateral forfeiture, which is permitted in most, though not all districts, serves to absorb a large portion of potential judicial workload due to increased enforcement

activity. Secondly, the magistrates' workload in rural areas is based on all federal activity, including park and forest services and other defense services. Hunting, fishing and camping violations accounted for only 6.5 percent of misdemeanors and petty violations handled by all magistrates in 1973;<sup>2</sup> the Corps share of all minor and petty offenses handled by part-time magistrates in 1973 was 5.2 percent.<sup>3</sup>

Consideration must be made as to whether or not the amount of increased court workload would justify and require the appointment of a full-time magistrate and also, whether the caseload of felonies and other serious offenses generated would be beyond the magistrate's jurisdiction and significantly impact the district court.

In order to approach the full-time requirement, simultaneous Corps and other actual court caseloads for the average part-time magistrate would have to be significantly increased. There is no justification for such a forecast in the near future; even a substantial increase in Corp-generated workload would not exceed the statutory capacity of a significant number of magistrates.

Impact of felony arrests on the federal district courts is and will be minor as a total proportion of criminal caseload. The courts already handle those felonies where arrest is made by federal officers. However, the number of felony arrests made by federal, state and local officers combined in Corps areas is minimal, rarely approaching 10 percent of all citation activity. At the level in 1973, Corps related felonies would constitute less than two tenths of one percent of criminal proceedings in U.S. district courts.<sup>4</sup>

The impact of expanded Corps enforcement on the part-time magistrates who serve Corps areas must be considered in the light of the Corps present share of the overall magistrate workload, as indicated by the figures below:

| Caseload Type                                                                   | Year   |        |
|---------------------------------------------------------------------------------|--------|--------|
|                                                                                 | 1972   | 1973   |
| Total minor and petty offenses disposed by part-time U.S. magistrates           | 35,098 | 40,582 |
| Total citizens referred to part-time U.S. magistrates by the Corps of Engineers | 429    | 2,108  |
| Percent of Corps contribution to total                                          | 1.2    | 5.2    |

It should be noted, however, that both the U.S. magistrate system and Corps citation program are relatively new; 1972 was the first full year of operation for the federal magistrates and the Corps citation program was fully implemented in February 1972. Growth figures for 1972 to 1973, therefore, represent implementation more than they reflect a rising level of violations. The Administrative Office of U.S. Courts predicts that the growth in matters handled by all magistrates (less than 20 percent in 1973) will level off. A 10-15 percent growth calculation has been used for the 1975 budget request.

Actual increases in Corps generated caseload depends on policy, manpower and visitor population. Even a substantial increase in citation activity at Corps lakes would still represent only a minor portion of part-time U.S. magistrates caseload.

#### C. State and Local Courts

A policy of visitor protection through enforcement of state and local law, rather than federal statutes, will impact state and local court systems as law enforcement activity increases significantly. The local area misdemeanor and felony courts already receive and dispose of cases from Corps property brought by state and local police, sheriffs, park rangers, conservation authorities, and a variety of other agencies with some enforcement authority around the lakes.

Most cases involve misdemeanors or minor offenses and are handled by courts of limited or special jurisdiction known by a variety of titles including, municipal, county or magistrates court. More specialized courts include traffic and juvenile court. Traffic cases account for approximately half of the caseload in all lower courts throughout the country.<sup>5</sup> Some advantages of processing cases through local courts include: (1) proximity to site; (2) more frequent convening of court; (3) lower overall costs than federal counterparts; and 4) frequently specialized juvenile courts with better facilities and experience with local juveniles than distant federal courts.

The role of local courts is limited by the fact that resource protection, a major responsibility of the Corps as reflected in Title 36, is not uniformly provided for in different state codes. The Corps, as a result, has typically provided its own resource protection enforcement. The bulk of offenses reported by federal personnel involve federal Title 36 resource protection violations. The federal law and federal courts will, therefore, retain a significant role at Corps lake regardless of law enforcement policy. The local courts may have a significant complementary role in traffic and other misdemeanors and felony offenses, but will not bear the impact of all enforcement.

Operating costs and offsetting revenues vary too much among the states for a standard estimate of cost impact to be meaningful for any one locality; however, salaries and expenses for state courts are on the average 69 percent of federal counterparts.<sup>6</sup> Local and part-time judges and magistrates receive lower compensation, but federal part-time magistrates also receive much less in salary and expenses than do district courts staffs. It is reasonable to expect then that cost impact of increased enforcement will be comparable between local courts and U.S. magistrates for misdemeanors and petty offenses. For felonies and possibly juvenile cases, however, cost impact would be an average 30 percent below U.S. District Court levels.

D. Corps Coordination with Federal Courts

More significant than the budgetary impact of Corps enforcement policy on the courts is the continuing cooperation which the Corps requires from each judicial district in order to make its enforcement credible. Due to the independence enjoyed by federal judges and particularly by the chief judge of each district, there are significant policy differences between judicial districts and sometimes between courts within a district.

Additionally, with the decentralized operations of both the Corps and the federal judiciary, these differences may not be apparent to the administrators. For example, in one district the chief judge is reported to disregard citations issued by the Corps. In another district immediately adjacent, the senior judge leans in the opposite direction by refusing to permit collateral forfeiture. In effect a defendant cited for the most minor offense in this district must travel up to 50 miles to appear before a federal magistrate, and farther if the defendant is from outside the state.

Another less drastic contrast which affects the orderly management of citation enforcement is the lack of uniformity in collateral or fine schedules between judicial districts. In some cases the district engineer assisted by district counsel has obtained agreement on a uniform schedule among the judicial districts in his project areas; however, there is currently no reason why the collateral fees could not be uniform nationwide. Revenue obtained should not be a significant factor, since fines and forfeited collateral are deposited into a general fund of the U.S. Treasury, and are not applicable to local expenses.

The Engineer Provost Marshal currently is represented on a liaison committee for the judiciary. The Corps should use this committee and other appropriate channels to represent its needs outlined above and seek further cooperation with the judiciary. Maximum cooperation, consistent with the legal independence of the judiciary, is critical to the

effectiveness of enforcement at Corps projects, whatever the manpower or policy applied.

Another consideration in Corps relations with the judiciary is the handling of juveniles in cases where citations would normally be issued. Since 1972, the Corps-wide policy (DAEN-ZK letter of 8 August 1972), is that for violations of Title 36, Chapter III, of the Code of Federal Regulations, a juvenile shall not be issued a citation to appear before the U.S. magistrate. Instead, information noted, using the DD Form 1805, will be passed directly to the U.S. Attorney for action before the U.S. District Court. Alternately, a complaint may be sworn before a federal magistrate who will in turn commit the matter to the District Court.

In a situation where citations have served as a convenient enforcement device especially for remote and thinly staffed Corps projects, the ruling poses problems, primarily in placing more responsibility on the Corps for communications and defendant tracking, with frequent time and travel involved in giving testimony.

The most effective method for handling juveniles, in many cases, should be through the local courts, as their machinery is better able to process and respond to these cases.

REFERENCES

1. Administrative Office of U.S. Courts, Division of Magistrates.
2. Administrative Office of U.S. Courts, Annual Report, 1973.
3. Engineer Provost Marshal, Evaluation of Corps Citation Program.
4. U.S. Courts, Annual Report, op. cite.
5. Law Enforcement Assistance Administration, National Survey of Court Organizations, LEAA, U.S. Department of Justice, 1973.
6. National Advisory Commission on Criminal Justice Standards and Goals, Task Force on Courts, 1973.

## RECORDS MANAGEMENT

A. Introduction

The importance of usable feedback information cannot be overstated. Throughout the chain of responsibility, from project to OCE to the Congress, commitment must be sustained or modified by results. In the area of law enforcement and visitor protection, this is particularly difficult because direct measures of success are elusive. However, a comprehensive picture of incidents and enforcement activity in relation to visitation and enforcement manpower is a valuable tool in evaluating resource utilization.

The system of manpower and resource allocation with respect to law enforcement requirements necessitates accurate and timely data on crime and incidents at Corps lakes. Yet, as other sections of this report point out, this data is generally unavailable on all levels of the Corps. An unknown amount of crime is not being reported to Corps project offices by either the public or reciprocally through local law enforcement agencies. As a result, manpower and resource allocations are below sufficient levels, and planning for resource management is being conducted without an accurate overall view of visitor protection requirements.

Basically, the records management system for the law enforcement function should serve several primary goals, as follows:

- Provide a timely flow of useful management information particularly designed to aid in evaluating resource allocation for visitor protection;



- Provide the most efficient and least cumbersome procedure for collection, transfer, and analysis of information at project, district, division and OCE levels;
- Balance the need for current, in-depth operational information and manageable historical record keeping in a single system.

### B. The Present Records System

The Corps has two primary channels of information for records related to visitor protection, between project and OCE management levels. These are the incident reporting system of the Provost Marshal and the Recreation Resource Management System (RRMS), an annual data collection system managed by the OCE Recreation branch.

#### Incident Reports

The present system of reporting used by the Provost Marshal's office is centered around the submission of the Incident Report ENG Form 4337. The current form is adequate in reporting the basic elements of an incident or violation, which include:

- Location in place and time;
- Elements of the incident and its impact;
- Complete audit trail from source.

The original form is forwarded from the site office through the district security office and division Provost Marshal office where it is assigned first a district sequence number and then a division sequence number. Thus tagged and initialed, the form is forwarded to the OCE Provost Marshal, arriving within 7 to 21 days of the incident. In the event of serious incidents, including fatalities, information is telegraphed to OCE. Key information from the Form 4337 is coded for machine processing and printouts are produced quarterly and distributed to division offices.

Some division level offices use their local data processing capability to produce their own offense/incident summaries, also on a

quarterly or annual basis. While formats vary slightly, both OCE and division level reports are keyed to three primary elements, the last two of which are coded from established tables. These elements include:

- Date and time;
- Location;
- Type of Incident/offense.

The incident/offense codes are adapted from a 5-digit series of military offense codes, with additions in order to clearly represent the kinds of offenses encountered in recreation resource facilities. The codes serve to represent statutory offenses and some documentation of accidents and safety-related incidents.

#### Recreation Resource Management System

The Recreation Resource Management System (RRMS) is a computer-supported system which collects, analyses and distributes annual recreation information for completed Corps projects with an annual recreation attendance of over 5000 recreation days. An analysis of recreation activity in each calendar year is produced as a set of reports, D-1 through D-20, which cover most aspects of recreation management. The D-12 report provides a summary of law enforcement detailing for each project the rangers with citation authority, warnings and citations issued, and law enforcement problems. Law enforcement activity may be compared with other measures of recreation involvement including attendance, covered in D-1 through D-6, and operations and maintenance expenditure, reported in D-15 and D-16.

At this time, there is little joint use of reports generated by the OCE Provost Marshal or by RRMS. The RRMS D-12 report is provided to the OCE Provost Marshal for information; however, the subtotals for citations and warnings in the D-12 differ from those in the Provost Marshal's own Citation Program Report since the RRMS omits projects with less than 5000 annual recreation days.

Those responsible for overall monitoring of visitor protection should have information at one time and place which represents both the resources allocated and the best indicators of the problem level. With this in mind, the following information should be available:

- Number of law officers (hours worked by sworn officers in all agencies):
- Accurate level of criminal incidents:
- Number of rangers issuing citations and warnings;
- Number of citations issued;
- Number of warnings issued;
- Overall visitor days;
- Average day use on peak month weekend;
- Average overnight use on peak month weekend;
- Number of incidents, with reference to location and type;
- Time of incident;
- Response time.

The elements above are considered a minimum for comparison, and do not exhaust all relevant data sources. This comparison may be made without change in current organization or procedures. At OCE level the information can be assembled manually using available reports or produced as a single report by a relatively minor programming change. What is most important is that incidents, as well as visitors and manpower available, be considered together.

#### C. Crime Reporting and Recording

While some changes in the form and composition of present records are warranted, the primary requirement is for improved collection activity. As indicated in this and other chapters, the present system of crime and incident recording is inadequate and misleading.

The importance of combining local law enforcement data for each project with citation/incident reports cannot be over-emphasized. The Corps present lack of knowledge with regard to the specifics of law enforcement and visitor protection at Corps projects is in largest measure due to this reporting inadequacy. Future planning and law enforcement management policies for Corps projects must take into account this significant dimension of activity if it is to identify and act responsively to needs on the project and site level.

The problem in the present system is two-fold. First, crime reporting from the lake is excessively difficult. Special call boxes or other devices are not available and public telephones are generally scarce and inconveniently located. In these situations, violations are infrequently reported. To compound this problem there is no control over who or where a visitor will call for service.

Secondly, there is no system for comprehensive crime and incident recording. Recording is performed by Corps personnel as well as by local law enforcement agencies without any reciprocal arrangements for data exchange or quality control.

The results of these situations were discussed in Chapter 6 of this report relating to crime statistics. It was indicated at that point, that not only are Corps crime statistics internally invalid, but they underestimate the actual level of crime.

To rectify this and the primary problem of visitor protection it was recommended in the Chapter on Communications that a more extensive system of telephones be made available at Corps lakes. Each should be clearly marked with the phone number of local authorities, for emergency, and the Corps project office for non-emergency situations. All calls for service, incidents, and crimes reported directly to the Corps office could easily be recorded. In addition, responses by local authorities should, in all cases, be accompanied by a Corps ranger and an incident report completed.

Rangers could easily be summoned via two-way radio by the law enforcement officer once he was dispatched to the lake area. Under this arrangement reporting would be increased; more reported crimes would be recorded; and OCE would receive a clearer picture of crime and vandalism activity.

In addition to the need for increased crime recording, it is necessary that a more uniform system be implemented for the issuance of citations and warnings. While the present report format appears functional, a more precise directive is required with regard to the importance of the citation and written warning in control of visitor conduct. Not only should unlimited discretion of the ranger be qualified, but the importance of the citation program for internal management purposes should be stressed. Project personnel must be made to understand that the non-issuance of a warning or citation, where one should be issued, is not performing a public relations function. In essence, it is performing a disservice to all other lake visitors who are being denied a proportionate share and opportunity to utilize the lakes resources, either natural or otherwise.

Only when there is a certain degree of uniformity of implementation in the citation program will it adequately serve the internal accounting and planning purposes of the Corps and the public interest for which it was designed.

#### D. Management Involvement

The key to productive and accurate reporting is the lake supervisor. The supervisor's involvement is two-fold. To begin with, he must direct and promote an effective program of reporting and recording crime and vandalism. This action depends on Corps policy and the unique personality of the lake supervisor and his rangers. Secondly, the supervisor must assure the quality of reports. In order to effectively perform this function the supervisor should be guided by the following provisions:

- Be aware of the number, type and quality of all reports generated.
- Review all reports, checking for legibility, completeness, and the use of correct forms.
- Initiate follow-up activity where needed.

Therefore, it is essential that the lake supervisor understand all Corps rules and regulations; local, state, and federal statutes; and the information available and procedures to interact with the Corps crime reporting system. Furthermore, it is essential that the results of the review from the supervisor be fed back to the originators of the report (including law enforcement agencies providing service) in a positive manner. This will serve to further upgrade report writing capabilities of field personnel and improve morale.

## Chapter 14

## COMMUNICATIONS AT CORPS LAKES

A. Description of the Problem

The provision of services in response to requests may be generally perceived as a three-step process: notification, decision-making, and response. In notification, the citizen establishes contact, either by telephone or in person, with an agency that he feels can handle his problem. The agency contacted will make several decisions regarding this request such as whether it has jurisdiction, the response to be made, and whether to notify other agencies. Once the decision to respond has been made, the agency must contact its field units to dispatch them to the scene and to provide such additional information as may be required.

In the frame of reference of the lake facilities managed by the Corps of Engineers, requests for service are originated by visitors to the lakes using telephones or personal contacts. When the telephone is used, the agency contacted is usually either the ranger headquarters or the most prominent local public safety agency. This choice by the caller is frequently but not always dependent upon the nature and immediacy of his problem.

Requests for service directed to the rangers are only received during normal duty hours. When the rangers are not available, the visitor must seek another authority or wait until the following day. If the rangers are successfully contacted, they will respond to the visitor's requests and, if necessary, will call upon the assistance of local public safety agencies. If a public safety agency is contacted and a

response is required, that response will be made according to the urgency of the problem and the availability of equipment and personnel. If a response by that agency is not required, the call will be referred to the rangers or other agencies as necessary.

Two communications systems are involved in the processes described above: the telephone system and mobile radio systems. In general, the radio systems engineered and operated by the Corps enable them to reliably communicate with rangers in the field and should also be supplemented with radio equipment tuned to one or more local public safety channels. The telephone systems at most of the lake facilities, on the other hand, are not well suited to the needs of visitors who may wish to report an emergency situation, usually because of the limited number of telephones in these areas or their locations which are often far removed from the place where they may be needed, such as campsites and recreation areas.

It appears that the basic problem is to examine various alternatives in improving the notification process and to recommend a reasonable course of action. Since each of the areas managed by the Corps of Engineers has its own unique problems, and although categorization may be made, the alternatives and recommendations contained herein were developed for general cases. Implementation of these recommendations should be made only after their applicability to the particular facility has been reviewed.

### B. Factors Contributing to the Solution

In accessing rangers or public safety agencies, the goal is to provide the visitors to the Corps facilities with means by which these agencies may be easily contacted. These agencies, in turn, are responsible for rapid response from the moment a call is received, and thus a call should be received in an efficiently operated communications center with a minimum of delay. The telephone is the primary means of contact and direct access to the complaint operator is of prime importance. Also, the implementation of easy-to-remember emergency telephone numbers, pay



telephone dial-tone and area-wide emergency service telephone numbers are important considerations.

#### Calls for Service

The need to establish or maintain a capability to receive calls for service at each of the Corps lake facilities may be established after examining such factors as visitor call rate (number of calls typically generated per thousand visitors), types of calls received (emergency vs. non-emergency), and referrals (requesting the assistance of other agencies). Unfortunately, these data are not available for the majority of the lake facilities, and obtaining such data for a representative sample of the lakes would be both costly and time-consuming. Consequently, "rules-of-thumb" based upon the experiences of public safety agencies throughout the country may be used as a first approximation, but caution is recommended in applying these generalizations to specific cases.

An examination of data obtained on call rates,<sup>1</sup> primarily by law enforcement agencies, reveals that the calls for emergency service vary between 0.5 and 2.5 calls per day per thousand population, with 2 calls per day per thousand being a reasonable average. It has also been observed that the ratio of non-emergency to emergency calls is approximately 2 to 1, resulting in a total call rate of about six calls per day per thousand. Figure 14-A illustrates the expected number of calls per day as a function of population. In the context of the lake facilities, the daily population may be expressed as the sum of the day visitors plus the overnight campers.

For the purposes of designing or evaluating communications systems, the peak rather than average loads are considered, since these are the periods during which the systems may be used to their fullest extent. Estimates of peak conditions are usually taken at the busiest hour of the week, usually observed on a Friday or Saturday evening. Generally, the peak requests for service are about five times the average hourly requests. Figure 14-B presents an estimate of the peak hour requests for service as a function of population.

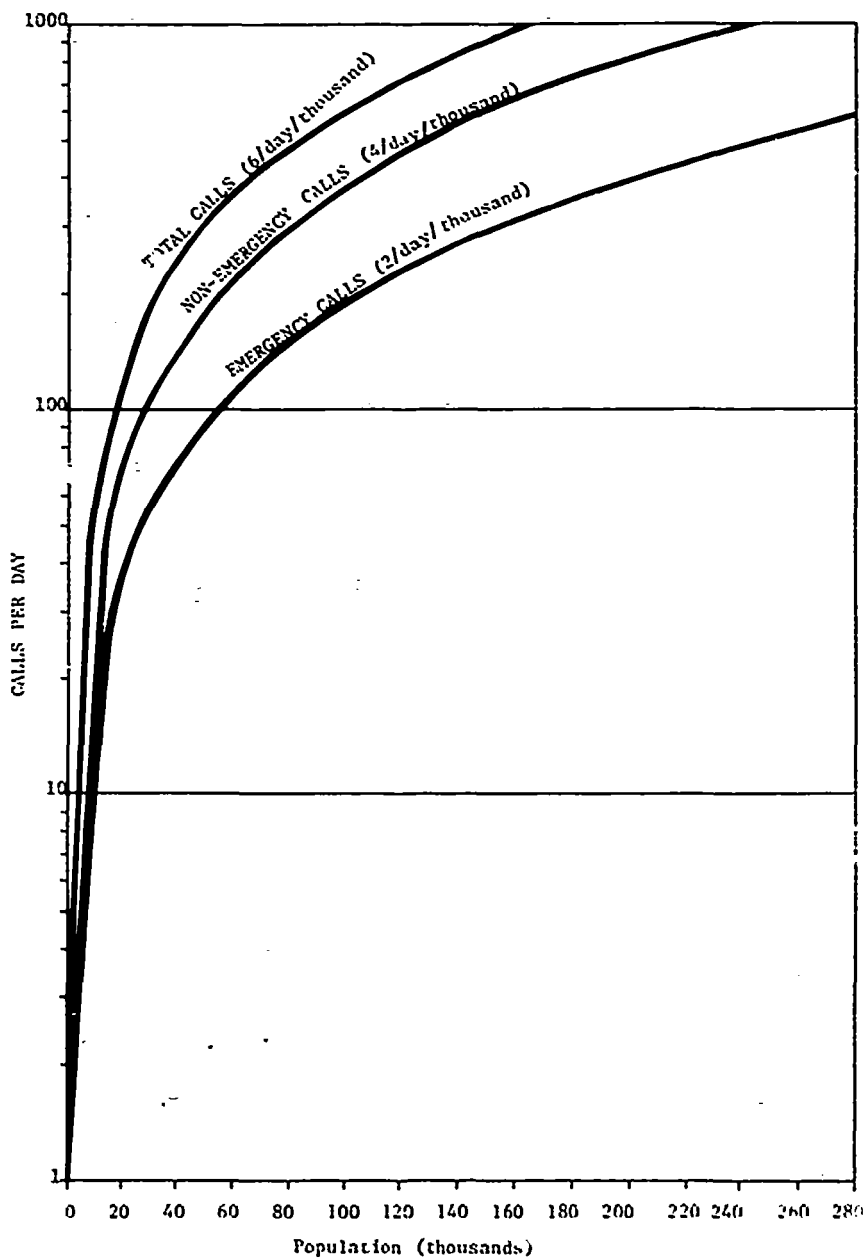


FIGURE 14-A. ESTIMATED DAILY CALLS FOR SERVICE  
AS A FUNCTION OF POPULATION  
(Source: PRC/PMS)

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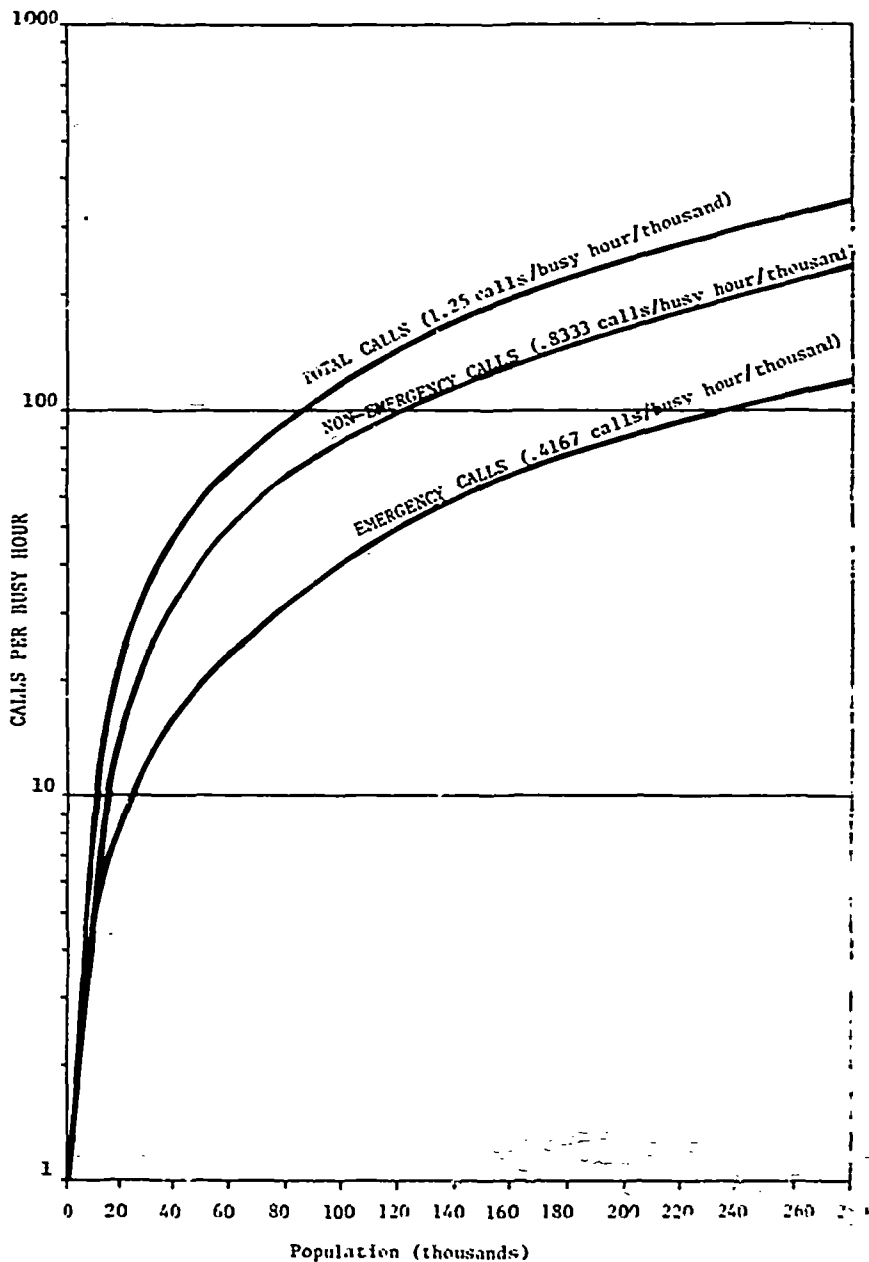


FIGURE 14-B. ESTIMATED BUSY HOUR CALLS FOR SERVICE  
AS A FUNCTION OF POPULATION  
(Source: PRC/PMS)

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The Telephone System

The objective of analyzing the telephone line requirements is to insure that there is a relatively small chance of getting a busy signal when the emergency number is dialed. In the event that more than one line is required, it is recommended that the lines (or trunks) be members of a set of numbers which ring sequentially (a rotary) so that only one number need be dialed to access the public safety agency, and if it is busy, the next number in the sequence would ring automatically.

The standard of determining the number of trunks needed is through the use of Erlang's lost call formula:

$$P = \frac{a^n/n!}{1 + a + a^2/2! + \dots + a^n/n!}$$

where P = probability of getting a busy signal

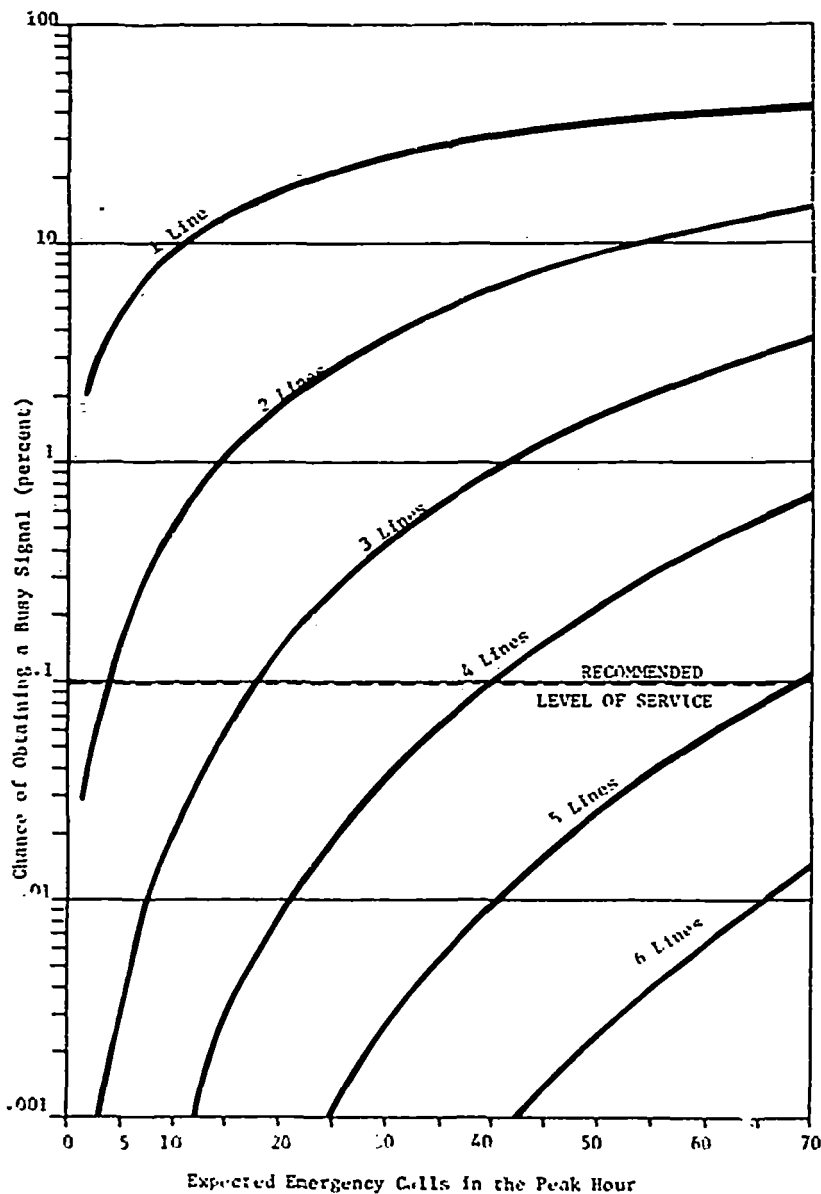
$a = c \cdot t$

$c$  = number of calls in the peak hour

$t$  = average length of a call (fraction of an hour)

$n$  = number of telephone lines

In general telephone company operations, a one percent chance of obtaining a busy signal is considered acceptable. However, in the case of public safety services, where the safety of life and property are often at stake there must be a greater number of emergency lines to insure that the chance of a busy line is less than one percent. Typically, the value .1 percent (or a probability of .001) is specified. For non-emergency lines, a one percent chance of a busy signal is acceptable. Figure 14-C shows the number of emergency lines that would be required to satisfy a given level of service for various values of calls per hour. Figure 14-D portrays the same type of information for non-emergency lines. In developing these figures, the average length of an emergency call was assumed to be 40 seconds and for a non-emergency call, 130 seconds, based upon statistics gathered from a number of agencies.



Expected Emergency Calls in the Peak Hour  
FIGURE 14-C. EMERGENCY TELEPHONE REQUIREMENTS

(Source: PRC/PMS)

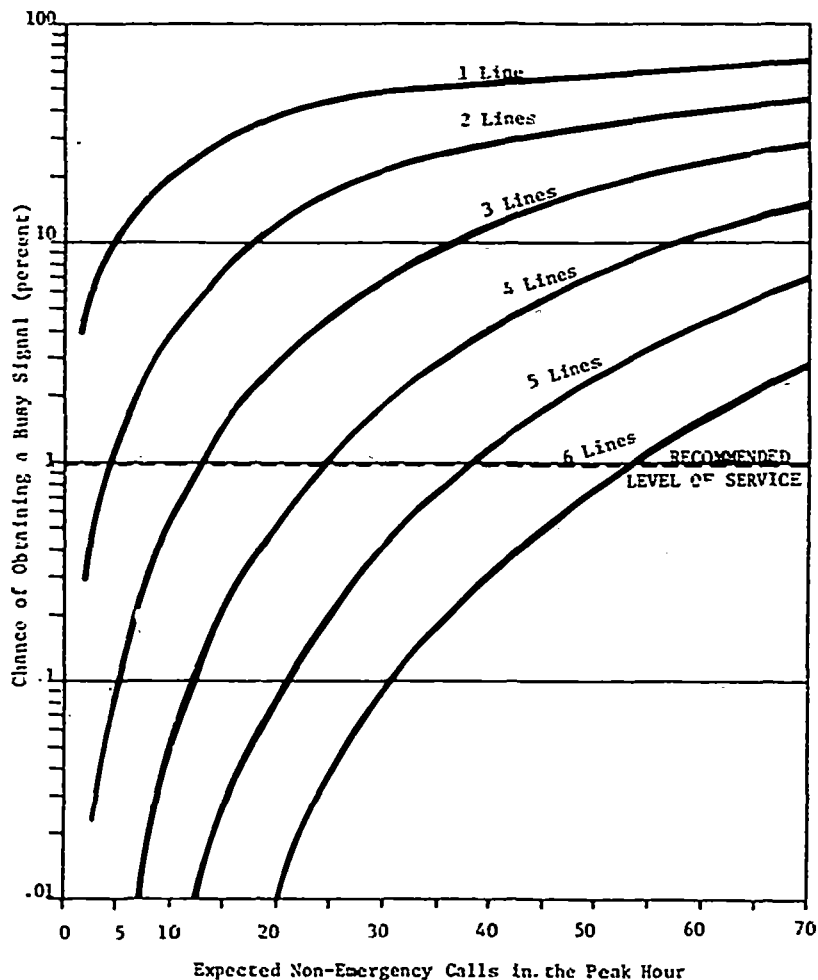


FIGURE 14-D. NON-EMERGENCY TELEPHONE LINE REQUIREMENTS

(Source: PRC/PMS)

Complaint Operator Requirements

The provision of a sufficient number of emergency and non-emergency telephone lines is only half of the input process. The second half is determining the required number of complaint operators needed to service the incoming calls in a timely fashion.

The technique of defining the complaint operator requirements is queuing analysis, which is described in various texts,<sup>2</sup> and is dependent upon the rate at which incoming calls arrive, the average length of a telephone conversation, the probability of having to wait for service, and the average length of time a caller may have to wait. The probability that none of the complaint operators are busy is given by:

$$P_0 = 1 \left[ \sum_{n=0}^{c-1} \frac{(c\rho)^n}{n!} + \frac{(c\rho)^c}{(1-\rho)c!} \right]$$

where  $c$  = number of complaint operators

$\rho = \frac{\lambda m}{c}$  the complaint operator loading factor

$\lambda$  = number of calls per unit time

$m$  = average conversation time

The probability that all of the complaint operators are busy is expressed as:

$$P(T>0) = \frac{(c\rho)^c}{(1-\rho)c!} P_0$$

where  $T$  = waiting time

Then, if all of the operators are busy, the probability of the caller having to wait time  $t$  is:

$$P(T>t) = P(T>0) \exp \left[ -\frac{ct}{m}(1-\rho) \right]$$

Figure 14-E depicts the number of complaint operators that would be required to answer calls within 30 seconds, for various numbers of calls per hour, with a recommended level of service corresponding to a 5 percent chance of waiting at least 30 seconds.

#### Cost Estimates

Two types of costs are presented here, personnel and equipment, both of which are associated with the notification input process. Since salaries and telephone equipment charges vary from place to place, the figures given here should be considered only as estimates.

For the provision of a 24-hour complaint receiving service, no fewer than four operators will be required for each position as determined by Figure 14-E. These operators would be used one for each 8-hour shift, plus rotation for weekends, sick leave, holidays and vacations. At an average salary of \$7,500 per operator per year, this represents a monthly cost of \$2,500 per operator position.

For the telephone lines required, as determined by Figures 14-C and 14-D, the monthly charge is approximately \$15 per line. In addition, the charge for a call director or similar instrument will be about \$15 per month. Not included in these costs are any charges that may be associated with the installation of additional telephone instruments in the lake areas for the use of visitors.

As an example, consider a lake facility where the typical peak daily population (e.g., Saturday during the July 4th weekend) is approximately 30,000 visitors. From Figure 14-B we estimate that during the busy hour, approximately 36 calls will be received of which 12 are expected to be emergency calls and 24 will be of a non-emergency nature. For the 12 emergency calls, Figure 14-C indicates that more than two lines will be required (three lines) to maintain the 0.1 percent level of service, and for non-emergency calls, Figure 14-D specifies that four lines will be required to maintain a 1 percent level of service for the anticipated 24



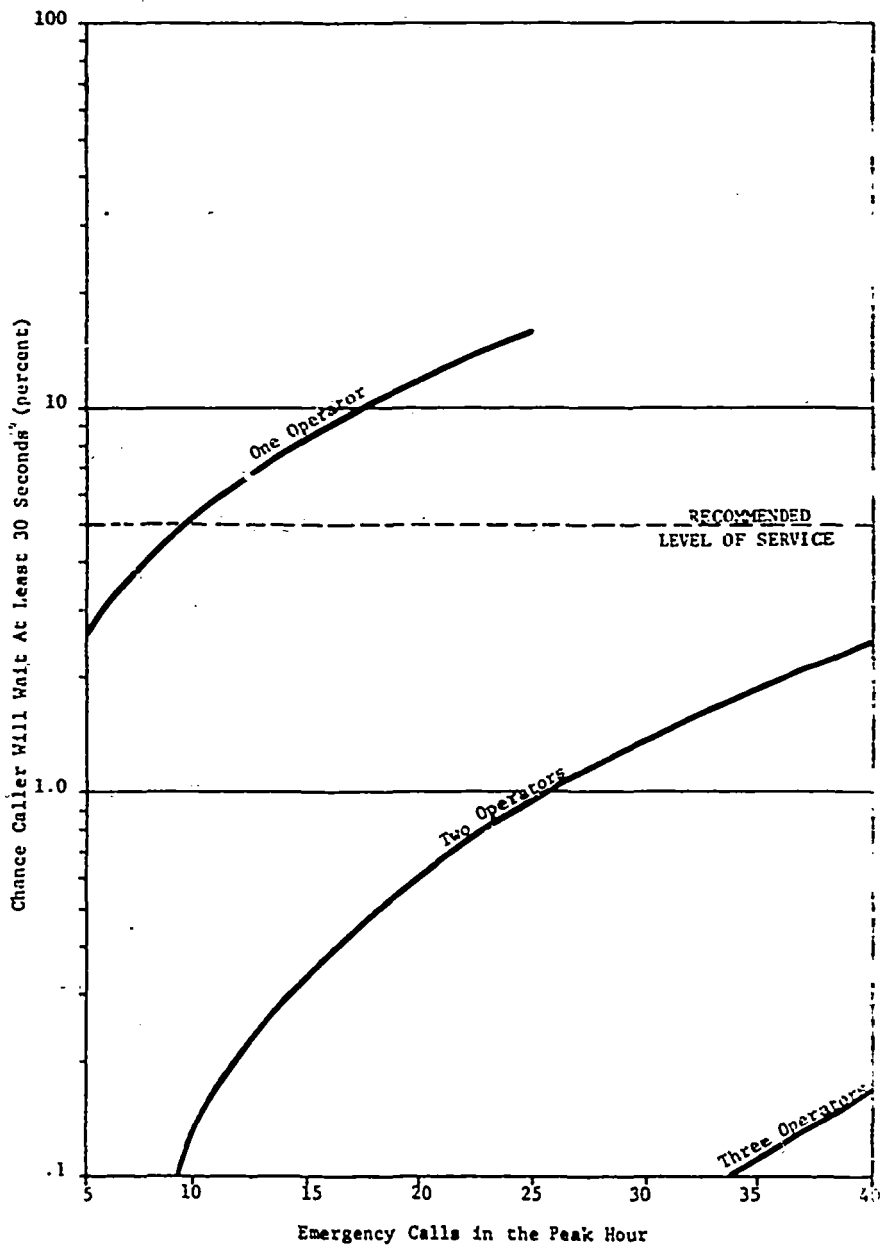


FIGURE 14-E. ESTIMATED COMPLAINT OPERATOR REQUIREMENTS  
FOR EMERGENCY TELEPHONE CALLS

(Source: PRC/PMS)

calls. Thus, the line and switchboard costs for these seven lines will be approximately \$120 per month.

Generally, it is good practice to utilize two different telephone numbers, one for emergency, and the other for non-emergency calls. Since the personnel costs represent the greatest investment, only the requirements for emergency call receipt are addressed here. Non-emergency calls could be answered as personnel become available, and the use of a tape recorded message to that effect, connected to an automatic answering device, could be used to inform the caller. Figure 14-E illustrates that one complaint operator would be able to maintain close to the recommended level of service of the anticipated 12 emergency calls in the peak hour. As expressed above, this results in a cost of approximately \$2,500 per month.

Thus, as an estimate, the costs required to maintain a complaint-answering facility for a lake where the peak daily number of visitors is 30,000 will be about \$2,620 per month or \$31,440 per year.

#### C. Alternative Solutions

Three elementary alternatives to satisfying the requirements for receiving calls are examined here:

- Rangers providing total service;
- Rangers providing partial service;
- Rangers contracting for services.

The first alternative, that of providing a 24-hour per day call receiving capability, was explored in the preceeding section. The advantages of this approach is that it provides a centralized location where all problems pertaining to a lake facility may be handled. Its disadvantages are in the areas of communications center delay and costs. The delays incurred are in the processing of emergency calls in cases where local public safety agencies, such as police or fire, need to be called in. It is generally unacceptable to design a system with a "built-in"

delay factor for emergency situations. In addition, the costs that will be incurred in operating such centers at lake facilities appear to outweigh the potential benefits. This disadvantage is highlighted by the comparison of the seasonal and transient characteristics of the lake populations with the more stable characteristics of populations served by local law enforcement agencies. That is, at lake facilities, the peak conditions for which the system must be designed may occur only a few times a year where in a local police context, peak conditions may often be observed several times a week throughout the entire year.

Part 1 notification receiving services provided by the rangers comprise the second alternative. Under this approach, personnel may be available to answer incoming calls fewer than 24 hours per day (for example, 8 a.m. to 12 p.m.), for full 24-hour periods during the weekends and weekday holidays, for various times determined by the seasonal attendance patterns, or a combination of these strategies. This alternative has a cost advantage over the first alternative in that fewer personnel would be required to operate the system although the same amount of equipment would be required. In addition to having the same basic disadvantage as the first alternative, this approach also involves a "confusion factor." This is the problem faced by a visitor who does not understand who is to be called at 9 p.m. on a Sunday evening late in the summer. This problem may be rectified, in part, by clearly posting and maintaining easy-to-understand instructions at various locations throughout a lake facility, especially at telephone locations.

The third alternative is to arrange or contract for the call receiving services to be provided by another agency already committed to providing this basic capability. The general trend in providing these services however, is through the implementation of the 911 universal emergency telephone number. For example, Police Standard 231.6 promulgated by the National Advisory Commission on Criminal Justice Standards and Goals<sup>3</sup> states:

"Every police agency should, by 1982, obtain single universal emergency telephone service and the cost of such service should be borne by the private telephone subscriber."

Over the next several years, more and more people will become acquainted with the 911 system and will tend to automatically use this number in emergency situations. Typically, 911 centers will be organized on a county or regional basis and will be staffed by professionally trained uniformed and civilian personnel. The costs of operating such centers are usually apportioned among the participating agencies.

The apparent inevitability of centralized and consolidated emergency call receiving centers providing 24-hour professional service makes the third alternative a desirable choice. This concept has the advantages of minimizing the delay for emergency calls, and would be designed so as to enable the easy transfer of those calls to the rangers which they are best suited to service. Non-emergency calls received at the 911 center would be referred to other agencies, but the delays that would be incurred here are more acceptable because the handling of these calls is not critical. Under this concept, rangers should be on the scene of an emergency or potentially dangerous situation to provide an initial assessment and perhaps modify the public safety agency response that would be required or may have already been initiated.

#### D. Additional Needs

Regardless of the alternative selected for implementation at a lake facility, the primary need is to provide a capability which will enable a visitor to rapidly contact an agency that can provide the assistance he may require. Various types of equipment for use by visitors have been considered including alarm boxes (both the push-button and voice types), fixed radio devices, sound-powered telephones, and miniaturized personal alarm devices. For reasons of installation costs, maintenance, false alarm rates, and familiarity, the pay-telephone is proposed as the device best suited to these needs.

The Standard for Communications, in Chapter 8, specifically established a minimum level of effort to reach adequacy. It is expected that unique areas with a history of high incidence of emergencies (e.g. tornadoes, floods, etc.) may wish to exceed the standard. Since the installations of these pay-telephones are likely to result in a money-losing proposition for the telephone company, it may be necessary for the Corps of Engineers to make an agreement with each of the telephone companies involved to minimize these losses, such as guaranteeing a monthly minimum gross return from these installations. A minimum return of approximately \$30 per month per telephone (or \$360 per year per telephone) would appear to be reasonable.

These telephones should be the type for which no money is required to access the Operator or the 911 emergency number. This feature, which may need to be negotiated with the telephone companies, is an essential element in providing unrestricted access for emergencies. Finally, the telephones should be labeled, indicating the proper procedures and telephone numbers for placing emergency and non-emergency calls to the public safety agencies and the rangers, and should be located in accordance with objective 5-1.

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## Chapter 15

## TECHNICAL SECURITY OF THE PHYSICAL PLANT

A. Introduction

The dams, reservoirs, power plants, canal locks, and other similar water resources projects operated by the Corps of Engineers each require some degree of security for two major reasons. First, some of these installations, such as power plants, need to be adequately protected against intrusion by persons intending to gain control of or damage these facilities. Second, the security of these installations should also afford some degree of protection to visitors, thus minimizing the chances of accidents. Naturally, the type of security measures to be employed will be dependent upon the relative importance of the installation to be protected and the accident threat it may pose to the visiting public.

Although the majority of Corps installations are protected by some means, there is a need to reexamine security requirements for one or more of the following reasons:

- Existing security systems, designed years ago, may not provide adequate protection in today's changing environment.
- The time required to respond to a security problem may be excessive because of delays in the notification (alarm) process or in the response process or both.
- New Corps policy in law enforcement may dictate changes in operations and security.
- Current technology can provide reliable security systems at modest costs which may, in part, make up for deficiencies in existing systems.

The following paragraphs highlight the basic features of the major alternatives in providing facilities security.

### B. Security System Alternatives

The past decade was one of dramatic growth for security systems technology. The state of the art was advanced in the areas of alarm systems, surveillance systems, control systems, and others. This section summarizes security system concepts, both hardware and personnel, as they relate to the problems faced by, or anticipated by, the Corps of Engineers.

#### Access Control

The primary means of controlling a restricted area is through the use of mechanisms which limit access to an area. These devices include perimeter fences, locked gates, adequate lighting and posted notices. In buildings, locked steel doors, windowless rooms for sensitive areas, limited access corridors, etc., contribute to the security of an installation. Personnel authorized to be in these areas may wear badges which, when equipped with a magnetically coded "stripe," can function as keys to allow access to other areas. Alarm devices, discussed below, may be incorporated into some access control devices to notify Corps personnel of a possible intrusion.

Although these types of devices are relatively inexpensive, they are essentially passive and, as such, represent only a deterrent. Unless they are specifically alarmed, or continuously observed, no notification is given when these mechanisms are defeated.

#### Alarm Systems

The need to quickly determine a change in the local facility environment may be met through the use of alarm systems serving two purposes. The first is to detect changes in such important parameters as ambient temperature, water levels, air purity (smoke detection), etc. These functions are usually performed by electromechanical sensors located at appropriate sites throughout an installation. The second type of alarm system is that oriented toward the detection of unauthorized personnel (intrusion) in a restricted area. These occurrences may be determined through the use of high frequency, ultrasonic, microwave, infrared, optical, and other



types of detectors. Both types of alarm systems would be connected to a central terminal point discussed below.

The advantages of alarm systems are that they provide rapid notification of a change from normal conditions and do not require the constant attention of an operator. The main disadvantages lie in the fact that many such systems produce false alarms which may be the result of a situation such as the failure of a component or the triggering of an intrusion device by an animal. Of course, each alarm would need to be investigated even if it is suspected to be false.

#### Surveillance Systems

The mainstay of modern surveillance systems is the Closed Circuit Television (CCTV) system which includes cameras, monitors, and video tape recorders which may be incorporated into the system to enable the playback of observations. A CCTV system may be used by staff or in combination with an alarm system to detect or to verify the presence of unauthorized personnel. CCTV offers the advantage of minimizing false alarms by enabling easy verification from a remote location and, therefore, does not expose Corps personnel to unnecessary risks. Also available are Low Light Level (LLLTV) cameras which enable the observation of areas in poorly lighted areas. The disadvantages of CCTV systems are in their relatively high equipment costs and the requirement of personnel to continuously observe the pictures being received.

#### Control and Communications

All of the security systems can be supervised from one or more central control locations where alarms may be received and CCTV pictures monitored. The center may also function as the dispatching point or provide a link to a dispatching point from which Corps personnel may be directed for investigative purposes.

Various options are available in designing a central control station including fixed remote terminals, such as in another office or in the supervisor's home, and mobile terminals which could enable a

single guard or outside law enforcement agency to rapidly respond to an alarm when the control center is not manned. Particular alarms could be associated with automatic diskings equipment which would notify the rangers, local or state police, or any other designated person or agency.

As indicated above, the various types of systems that may be put into use at a Corps facility should be terminated in a central center, and preferably in a single console. The design of this console should be dependent upon the equipment currently in use, as well as foreseen, to meet future requirements. Most importantly, the console should be designed to be easily operated by the personnel most likely to be assigned those duties.

#### C. Courses of Action

The Corps should periodically and critically review the security requirements and capabilities at each of its facilities in conjunction with the provost marshal's evaluations and compare these results with the equipment and systems capabilities offered by various manufacturers in the field. It should be noted, however, that pre-packaged systems often are not ideally suited to specific requirements. Rather, a modular building block approach, allowing the use of standard equipment while providing flexibility for future expansion that may be required, is recommended.

## Chapter 16

TRAINING CORPS RANGERS FOR LAW ENFORCEMENT  
AND VISITOR PROTECTIONA. Introduction

In virtually every occupation and profession today, central themes of concern are the educational preparation, training, and development of the manpower involved. In industry, the rapid advance of technology and automation has created a demand for higher levels of education and skills among workers. At the same time, the need for professional technicians in education, health, counseling, and the broad spectrum of other community services is growing faster than the educational system can produce them. At the national level, a great deal of effort is going into a continuous and long-range study of the manpower resources of the country. Along with this is being developed a national policy dealing with the upgrading of educational levels and skills as well as with the distribution and the most effective utilization of national manpower resources. In effect, the manpower problem is becoming defined more in terms of an educational and training crisis rather than in terms of manpower shortages.

The recreation ranger profession has not only been caught up in this complex of social and economic change but it is also feeling, more directly than in the past, the combined impact of new concepts and techniques in management, the technologies underlying the application of system analysis to social problems, and the results of research on differential effectiveness of programs. Even the traditional boundaries which kept rangers confined within the conventional limitations of resource management, recreation program development, and visitor security are undergoing considerable reexamination. Implied in all of this change are some very

critical issues relating to the utilization of professional and nonprofessional personnel, the validity of existing formulas of staffing ranger services, and the kinds of training that will contribute effectively to the programmatic changes which seem imminent.

The increased need for and the utilization of recreation areas is a fact of life in the United States. The tremendous increase of visitors in recreation areas has brought a natural increase in the number of crimes committed and consequently, an increase in the need for visitor protection. Clearly stated, the growth of recreation areas has resulted in a greater flow of people and has multiplied the opportunity for disruptive behavior to operate. This profound change and increase in the use of recreation areas has in many instances seriously strained normal utilization of the areas and has notably increased social tensions. Hence, the recreation areas are fast becoming very much in need of increasing control by Corps officials.

The presence of crime is now a central factor in American life, with an increasing number of citizens becoming victims of crime. All citizens are victims of the fear of crime. The Army Corps of Engineers is no exception. The problem of law enforcement at Corps lakes as discussed in Chapter 6, indicates that the public is exposed to a considerable amount of risk of being victimized at Corps projects. While we do not recommend, in response to this situation, that Corps rangers become full law enforcement officers, there is a significant amount that they can accomplish within their own capacity to make recreation areas safer for the visiting public. Without sufficient training, however, this capacity to respond appropriately will be significantly reduced.

During the past decade, major improvements have been made in law enforcement training. Statewide training legislation, federally funded community relations programs, and the response of educational institutions to the learning needs of law enforcement agents have added measurably to the quantity and quality of training at all levels.

### B. Purposes of Training

Any effort to improve the ability of rangers to respond appropriately to the needs of park visitors, must embrace an examination of the importance of preparation of both newly appointed and career officers. One cannot deny the fact that the duties and responsibilities of a ranger are sufficiently complex that he must receive immediate indoctrination to enable him to function effectively.

The basic purpose of ranger training is to prepare rangers so that they may perform their job-related tasks in such a way as to assure the maximum level of effectiveness and public satisfaction. The accomplishment of this general purpose occurs when the trainee has been provided with the specific information essential to his understanding of his duties, when he is given an opportunity to recognize and develop the essential skills of his task and when his attitudes are made consonant with the Corps philosophy and objectives.

Beyond the purpose of developing the individual's abilities, the training experience is also utilized for other purposes. For example, formalized training programs frequently serve to provide the employing agency with its first opportunity to evaluate the trainee to determine his potential suitability. Where training is offered to newly appointed rangers, it should be a requirement that they satisfactorily complete the training program in order to retain their position. Thus, training becomes an extension of the selection process. Another important reason for providing training to newly appointed individuals is to reduce the liability for damages incurred by one of their agents. When it can be demonstrated that the agency discharged its responsibilities through adequate training, that liability is often reduced or eliminated.

The present system of ranger training for the Corps of Engineers is insufficient. It consists, on the average, of three days of training in the enforcement of Title 36 Rule and Regulations and several slide photo programs relating to the issuance of citations and warnings under Title 36.

The actual and potential scope of responsibilities which the ranger is called upon to perform requires a significantly greater degree of both pre-service basic training and continuous in-service refresher and advanced training. The development of both of these forms of training should be a priority in the process of professionalizing the ranger force and should follow the recommended 50-hour minimum training requirement set forth in the Standards section of this report. The development of the training program will generally follow the following format:

- Perform an analysis of current and projected ranger skill requirements, basic knowledge needs, and the overall requirements associated with protecting the natural resources and assisting law enforcement in protecting visitors.
- Compare training needs with the current level of training.
- Analyze the current and projected training needs insofar as Corps developmental planning requirements are concerned.
- Review the training programs utilized by related park and recreation systems.
- Develop alternative methodologies for the administration and organization of the training program.
- Design a curriculum which meets the needs of the ranger force.
- Develop an implementation plan.
- Evaluate the program after the first year of operation.

The process of planning and operating a training program is generally divided into two major areas of responsibility; namely, the training program and its administration.

Administration is concerned with the management of personnel, money, and resources in order to achieve an effective, efficient and economical operation.

Some general administrative considerations in program development are: determining the type of training needed, the personnel to be trained, statement of the objectives and standards of performance to be achieved.

the training philosophy; policies and procedures necessary to achieve these objectives.

The degree of success in a training program is generally in direct proportion to:

- The desire and ability of the administrator to establish the program,
- The desire and ability of the personnel involved to accept such training.

Analyses of successful programs tend to reflect certain characteristics that are typical of a productive, on-going and expanding program. These qualities include, but are not limited to:

- A high degree of personal contact and mutual interest in the program by the chief administrator with those responsible for implementing the program. This does not imply a failure to delegate but rather demonstrates his support, concern and involvement.
- A constant awareness by the administrator of the need for support and participation by the community. In addition to financial support, it entails developing a closer working relationship and understanding between the ranger and the community.

#### C. Approach to Training

A primary factor in establishing and conducting a training program at a moderate cost is to actively solicit support, involvement and participation by interested and qualified members of the local community. Assuming that a positive attitude toward training is present, conferences with supervisors and field personnel and relevant law enforcement agencies can be extremely productive.

The Corps should consider a multi-level approach to training which could consist of the following interrelated aspects:

- Basic Recruit Training. It is recommended that, at a minimum, 50 hours of recruit training be conducted prior to the assumption of ranger duties for both permanent and seasonal employees. Human relations training is mandatory. This could be accomplished

for seasonal employees one week prior to the season's opening. Another alternative would be to conduct one or two training sessions during Christmas and/or Easter break. This is the best time to train permanent employees because of the lull in visitation and seasonal college students could also attend. The mutual benefit from this contact would be worthwhile.

- Roll Call Training. This form of training is widely used by law enforcement agencies and could be easily adopted by the Corps for the fulfillment of pre-service and on-going training requirements. Utilized consistently, 15 minutes just prior to each shift, these sessions can be used to discuss subjects of direct and timely pertinence to the site or to refresh previous training. Training cassettes which have been developed, should be expanded to cover more areas of concern. The concept of the IACP Training Keys is a good model.
- Intensive In-Service Training. During the course of each year one or more one-week courses should be offered to permanent as well as part-time rangers. Provided in the form of workshops, each ranger should be required to attend at least one annually in alternating subject areas. Part-time seasonal employees should be granted access to these courses as well as given credit for attendance toward later potential full-time employment.
- Supervisory and Management Training. This form of training should be provided for those seeking promotion to supervisory or managerial levels or for those who are presently in those positions. Subjects particular to recreation resource management should be emphasized together with more generic subject matter such as the psychology of leadership, decision-making, role of the supervisor and relationships with subordinates, work performance appraisal, managing the organization, management functions, planning and related topics.

Sources of information related to instruction in these areas can be obtained from local vocational education, junior colleges, universities, technical institutes, regional police training schools, and other agencies involved in training. While the scheduling of personnel for enrollment to various courses should consider particular needs at the corps and project levels, it can also provide the opportunity for continued self-development by those rangers who demonstrate special interest, aptitudes or abilities.



As has been indicated in the above, the ranger trainee and the part-time seasonal employee should be given every possible opportunity to increase their professional capabilities.

The goal of the training program should be to increase professional competence to the utmost degree possible while providing the necessary incentives to maintain qualified personnel. One significant way in which this can be accomplished is through the maximum development of the seasonal employee. These individuals, who are primarily college students, are valuable augmentations to the permanent ranger force. Their duties and job responsibilities are in large measure very similar to those of their full-time counterparts, particularly in respect to public contact.

To fulfill the most effective manpower allocation plan recommended in this report, it is maintained that these individuals can and should be put to much greater use than is presently the case. In their daily operations these individuals will naturally serve a significant role in a resource and visitor protection capacity and should be trained in the same disciplines as the full-time ranger, although they need not be given the power to issue citations. They should be fully aware, for example, of public relations techniques, interpersonal relationships, the use and abuse of authority, recreation skills, management of the environment and similar matters as the full-time ranger. It has been recommended, therefore, that basic and in-service training be offered to these individuals just as it is to the full-time ranger. Part time seasonal employees should additionally receive credit toward government service if these courses are successfully completed and applied to later full-time service.

The encouragement of college and junior college education for full- and part-time personnel alike should be a priority for the Corps. Presently the Federal Government is financing the education of a number of rangers in appropriate fields of study. This should be propitiously encouraged at the project level. In addition to receiving credit toward government service for summer employment, the seasonal employee should be

able to utilize a form of the "co-op" program presently available to other government employees such as the Law Enforcement Education Program provided by the Law Enforcement Assistance Administration. This program allows a college student to attend the university or college of his choice at government expense while serving interim periods on the government job in which he or she is being educated. Upon graduation the individual is obligated to serve a minimum amount of time in the actual governmental position for which he is training.

If the Corps of Engineers wishes to creatively expand their recreation role and to utilize the best possible personnel in this effort, it must accent these and other forms of career development and personnel retention practices. The expenditures associated with these programs are easily repaid when:

- Personnel who are trained and experienced in the recreation-resource field are not lost to other professions.
- Trained and experienced seasonal employees consistently return to the same summer jobs without the need for extensive basic training.
- Seasonal employees consistently pursue full-time employment after initial contact with the Corps.

The cost savings associated with accomplishments in these areas more than offset the initial expenditures incurred in training and personnel benefits and options plans.

Certain other areas of study should be considered for all levels within the organization. For example, the local junior college, university and adult continuing educational programs may also provide instruction in the behavioral sciences such as psychology, sociology, human relations, juvenile delinquency and others. Exposure to these areas can serve to increase the understanding of the individual officer and improve the overall efficiency of the department.

Nearly all visitor protection tasks involve people, and the accomplishment of the law enforcement purpose necessitates a control of people that is best affected by winning their compliance with laws and ordinances. Thus, an important training objective is an understanding of human inhibitions, emotions, reactions, and attitudes, and of techniques that promote desirable relationships between the ranger in the law enforcement function and the public. Training should also emphasize that the ranger must scrupulously avoid corruption, brutality, and prejudice.

Regardless of the length or type training received, complete and accurate training records should be maintained on each ranger. These records not only provide a basic source of information for scheduling needed courses but insure that training of individual officers is not repeated nor particular areas of instruction neglected.

For an effective law enforcement training program for rangers to be formulated on anything approaching a rational and scientific basis, it is obvious that as much information as possible relating to the rangers job, in the ranger-visitor protection function, must be collected. It is essential to know how the ranger views his role in enforcement of rules and regulations and how the recreation community receives the ranger in this security role. When we know accurately what it is that a ranger does during his tour of duty concerning resource and visitor protection, it will be a much easier matter than it is now to make decisions relative to what a ranger should be trained to do in this function. Then the relative importance of each component of the training program can be determined as well as the amount of time devoted to each component.

In the section on Standards, the PRC/PMS recommendations for the ranger's future role were discussed. The cooperation with the law enforcement element was stressed. The importance of the ranger's role in this area cannot be underemphasized.

#### D. Possible Basic Training Courses

The following courses are offered as an example of some of the law enforcement inputs to the overall ranger training program. Courses dealing with the natural sciences and resource management are not included here because this emphasis for the report has been on law enforcement. However, it is felt by the study team that these courses are of the utmost importance and should be expanded to meet the growing needs of recreation. The following courses are offered for possible inclusion into the training program from the law enforcement perspective:

- Patrol and Traffic Training;
- Rules of Evidence;
- Federal, State, Local Ordinances and Special Ordinances;
- Ranger Jurisdiction and Authority;
- Physical Training;
- Defense Tactics;
- Department Orientation and Policy;
- Community Relations, Human Behavior, Public Relations;
- First Aid and Lifesaving;
- Communications Network Training;
- Public Speaking;
- Report Writing;
- Driving Techniques;
- News Media Relations;
- Juvenile Behavior;
- Narcotics and Drug Abuse Training;
- Law Enforcement Technology;
- Care and Operation of Departmental Equipment;
- Geography of Patrol Area;

- Elements of Preliminary Investigation;
- Departmental Procedures in Handling Catastrophes, Disasters, and Fires;
- Departmental Procedures Relating to Civil Complaints, Domestic Complaints, Mental Illness, Animal Bite Cases, Trespass Complaints, Drug and Drunk Driving Complaints;
- Handling of Lost, Stolen and Recovered Property;
- Organization of Federal, State and Local Courts and Military Courts;
- Court Deemeanor and Testimony.

Additional training should include:

- Instruction in law, psychology, and sociology specifically related to interpersonal communication, the ranger-law enforcement role and the community;
- Assigned activities away from the training academy to enable the ranger-officer recruit to gain specific insight in the Corps area, criminal justice system and local community;
- Remedial training for individuals who are deficient in their training performance but who, in the opinion of the training staff, demonstrate potential for satisfactory performance;

#### E. Career Development

If the Corps of Engineers wishes to effectively achieve professionalization in their ranger program, they must recruit and maintain quality personnel and promote highly adequate supervisors. A career development program is a means to this end.

The objectives of career development for the Corps of Engineers should consist of:

- Assuring that all line personnel are kept informed on the most recent professionally accepted standards of performance and knowledge;
- Assessing present personnel to determine if persons of considerable potential are available for managerial, professional, and specialist positions;

- Allowing line staff a greater degree of freedom and options for vertical mobility in the organization.

Due to the newness of the ranger program and the ambiguity of objectives, a career development program has not become fully operational within the Corps organizational structure.

One of the principal problems has been the reliance upon experience and time-in-grade as the primary indicator of competence and promotability. Seniority may be indicative of endurance, but it in no way suggests a level of competence. Using experience as an index, which is difficult to assess in the first place, there is no assurance that the recipient of any given experience has the capacity, interest, or desire to evaluate and assimilate an experience as a learning phenomenon. It should be obvious that experience does not, in and of itself, prepare personnel for complex and intricate supervisory and managerial positions.

There are a number of avenues which the Corps of Engineers may utilize to program career development. The following approaches may serve as outline designs or guidelines for satisfactory creation of a career development program.

#### Seasonal Employee Program

The success of a career development program is contingent upon the ability of the organization to seek, find, attract, and retain competent young men and women. The retention of seasonal employees and the importance to the Corps program was thoroughly discussed in previous pages of this section. This program should be implemented to enable the Corps to recruit a high calibre of employee for the future.

#### Job Rotation

The creation of a well-planned, closely monitored assignment rotation program between lakes can maximize the complete organizational

experience that ranger personnel can gain. Periodic rotation will also give rangers the opportunity to assess and evaluate other assignments, tasks, and functions they may wish to strive for on a permanent basis and will add to the feedback process for evaluating operations.

Job rotation, which has been pursued effectively by other recreation agencies, has served to increase the employees understanding of the overall organizational policies and procedures because of this lack of ingratiating into the local environment. This program would be more acceptable to employees if low-cost housing were provided at the lakes. This would also aid in recruitment.

#### F. Implementation and Management of Training Resources

With the proper and adequate training curricula in mind, considerations of the management of training resources and determination of the most cost effective sources and means for implementation of training must be established.

A number of alternatives are presented:

1. Establishment of a central Corps of Engineers ranger training center to include resource and visitor protection, and management training.
  - a. Advantages
    - (1) Established centralized facility
    - (2) Centralized administrative and operational control
    - (3) Uniformity of training; i.e., curricula and staff
    - (4) Integral cooperative training in visitor protection and other ranger functions indigenous to Corps recreational resource areas
    - (5) Lower long-term costs after initial establishment due to avoidance of contracting and/or duplicate facilities
  - b. Disadvantages
    - (1) Partial duplication or overlap of efforts with other established training programs
    - (2) Transportation, food and housing must be provided trainees
    - (3) High initial start-up costs
    - (4) Diversion of field talent to full-time training duties

2. Training at Divisional Level

a. Advantages

- (1) Decentralization to fit local Divisional and recreation-resource area problems
- (2) Progressively structured on-the-job training
- (3) Closer affinity to geographical work area
- (4) Lower transportation and living costs for trainees
- (5) Better exposure to Divisional chain of command

b. Disadvantages

- (1) Lack of uniformity of training
- (2) Lack of uniformity of qualified training staff throughout the Corps
- (3) Lack of centralized administrative and operational control
- (4) Duplication of efforts with other divisions, hence increased costs due to this situation

3. Contracting with the U.S. Army Provost Marshal's Office for training with Military Police

a. Advantages

- (1) Established comprehensive law enforcement curriculum
- (2) Lower costs for in/ on phase
- (3) Elimination of separate administrative costs
- (4) Department of the controlled

b. Disadvantages

- (1) Reinforces different perspective from ranger/conservation officer mission
- (2) Lack of Corps administrative, operation and curriculum control
- (3) Requires additional costs for specialized Corps recreation-resource training
- (4) Law enforcement training tailored to U.S.M.P. is not totally applicable to visitor protection procedures at Corps recreation-resource areas

4. Contracting with state and local law enforcement agencies

a. Advantages

- (1) An established comprehensive law enforcement curriculum
- (2) Awareness of local ordinances and procedures
- (3) Fostering of cooperative relations and arrangements with local agencies

b. Disadvantages

- (1) Lack of Corps administrative and operational control
- (2) Requires additional costs for specialized Corps recreation-resource training
- (3) Lack of uniform training between regions



- (4) Constant contractual renegotiation and costs year after year
  - (5) Lack of training addressed to specific ranger-visitor protection problems
  - (6) Dependence on quality of local agency's training
5. Contracting with National Park Service for training
- a. Advantages
    - (1) Established curriculum
    - (2) Uniformity of training
    - (3) Recreation-visitor protection awareness
    - (4) Federal orientation
  - b. Disadvantages
    - (1) Lack of Corps administrative and operational control
    - (2) Continuing contractual costs
    - (3) Requires additional costs for specialized Corps recreation-resource training
6. Consolidation of training academies for Army Corps of Engineers recreation-resource rangers, National Park Service and U.S. Forest Service staff, to include recreation, resource protection and law enforcement training in a uniform curriculum.
- a. Advantages
    - (1) Uniformity of training
    - (2) Shared costs
    - (3) Recreation-visitor protection awareness
    - (4) Central location
  - b. Disadvantages
    - (1) Major organizational and political adjustments
    - (2) High start-up costs
    - (3) Lack of autonomous Corps administrative and Operational control

The selection of the best alternative must be based upon a concentrated study by the Corps of Engineers with inputs from the Division, District and project levels. In largest measure this study, as previously outlined, should concentrate upon the cost of each alternative in the context of maximizing staff development and maintaining the best personnel for career positions within the Corps recreation program.

## Chapter 17

## LAW ENFORCEMENT AND VISITOR PROTECTION PROGRAM PLANNING

A. Introduction

This chapter involves the implementation of objective S-1 which reads, "The Corps should establish a position for a professional law enforcement specialist at the Division level to assist in the planning and design of recreation areas and to coordinate law enforcement and visitor protection planning and services of the Districts within the Division."

Organizationally, the law enforcement (LE) specialist would work closely with the provost marshal, also on the Division level. The provost marshal, whose primary role lies in the areas of maintaining security of the physical plant and sensitive information, should not attempt to over-extend their capabilities. The LE specialist will be primarily concerned with the Corps role in recreation, which is not the perspective the provost marshal is oriented towards or has been trained to fulfill.

In order for the Corps to successfully promote a law enforcement and visitor protection program, a panoply of changes and additions in policy and operations at all levels will need to be initiated. The effectiveness of such changes will hinge on effective decision-making reflecting expertise, which can only be introduced into the Corps organization via the use of recreation-oriented law enforcement specialists.

B. Operational Duties

The LE specialist will be involved on every level of planning and assistance for law enforcement and visitor protection at the Corps lakes. Specifically, the LE specialist's duties will include:

- Advise the Divis. a Commander on the implementation of Goal 8.
- Assist OCE in producing a manual (e.g., an Engineering Regulation) of procedures and management for law enforcement and visitor protection.
- Periodically review and update the manual.
- Review and evaluate the Districts in their performance and productivity in implementing the standards.
- Assist the lake managers in coordinating and contracting with law enforcement.
- Coordinate the physical security program with the Provost Marshal.
- Review all records relating to crime and vandalism at the lakes and submit quarterly reports to OCE.
- Investigate and review citizen complaints charged against rangers or law enforcement agents.
- Assist lake managers in preparing and updating annual law enforcement plans and coordinating such plans with recreation area master plans.
- Assist in the development of victimization surveys.
- Assist in the development of a detailed study to identify specific environmental designs and management practices and standards that serve to minimize or eliminate existing crime and visitor protection problems at Corps lakes.
- Assist lake managers in devising work schedules so that maximum presence of trained, permanent rangers is available, on each shift, to supervise seasonal employees.
- Assist the districts in implementing an improved recreation visitor education program in crime and security hazards (e.g., lock cars, put equipment in car trunks, location of emergency phones).
- Assist lake managers in gaining support and involvement from the local community.
- Assist in the supervision of ranger training by developing curriculum, selecting instructors, and evaluating the instruction.

C. Summary

The above list of duties illustrates the kind of capability needed at the Division level to assist in the formulation and implementation of law enforcement and visitor protection services at Corps recreation areas. The position of law enforcement specialist at the Division level appears to be a strategic location to be able to assist District recreation planners and lake managers in developing law enforcement plans and integrating these with recreation area master plans. The Division relationship with OCE is close enough for the LE specialists to assist in the preparation of an Engineering Regulation or manual on law enforcement and visitor protection policy and practice.

## CHAPTER 18

## PARK PRACTICES FOR LAW ENFORCEMENT

A. Introduction

There are many problems associated with improving law enforcement in Corps recreation areas that relate to the layout and management of the areas. Planners, designers, and managers of recreation areas seek to provide facilities and physical organization in a manner that is conducive to a visitor achieving a satisfying recreation experience. Indeed, the security and safety, both real and perceived, of visitors at a recreation area is an important ingredient of the recreation experience.

The findings and observations in this chapter pertaining to park and recreation management practices for enhancing law enforcement and protecting visitors and resources are based upon:

1) Corps survey questionnaire results; 2) information and impressions obtained from field visits to representative Corps lakes and state and local recreation and park agencies; 3) interview discussions with Corps administrators, planners, and rangers and personnel of other federal, state, and local organizations involved with park, recreation and law enforcement and environmental protection; and, 4) relevant literature pertaining to the problem.

Where the development of direct statistical bridges between causes, effects and remedial measures for certain problems were unattainable within the scope or time constraint of this study, professional assessments are made reflecting the philosophy and state of the art conventions of law enforcement and park and recreation management. It follows that the Corps of Engineers will exercise its own judgment in implementing measures considered appropriate for its mission and recreation resources management program.

### B. Planning for Law Enforcement Needs

There are instances where visitor protection and law enforcement problems can be lessened or avoided if they are anticipated in the initial planning and design of a new recreation area, or expanding or upgrading an existing recreation area. Factors which can be considered to anticipate law enforcement needs are described below.

#### Forecast Social and Economic Characteristics

Forecasts of the social and economic characteristics of visitors will enable analysis of recreation activities and facilities that will satisfy needs and be of interest to users. Certain groups of people with similar economic or cultural characteristics will have particular kinds of recreation interests or motivations that may be anticipated and appropriately weighed in planning. Certainly a fishing pier is not going to appear relevant at a beach area frequented by students from a nearby college town. The lack of relevancy in recreation system design is often the thing that triggers boredom, frustration, or a lack of identification with the recreation area. Antisocial behavior could stem from such reactions.

Strengthening the behavioral considerations in the planning and projections methodologies practiced by the Corps would likely result in more sensitive and revealing insights into user needs and desires from both recreation and security.

#### Analyze Crime Rates

Evaluation of information on rates and kinds of crime and disturbance from local areas, regions of predominant visitor origin, and Corps projects will enable better assessment of the character of law enforcement to be anticipated in managing the recreation area.

#### Conduct Site Study

Needs for security surveillance and public safety should be considered in detailed site evaluations for visibility, access and circulation, and orientation of facilities.

#### Involve Law Enforcement Specialist

Law enforcement specialists and ranger personnel familiar with the area and potential visitor character should participate in planning and designing recreation areas. Preliminary Corps recreation area plans should be circulated to local and state law enforcement agencies for review and comment.

Concurrent with the benefits to coordinate law enforcement considerations with a more comprehensive recreation management program is the actual improvement of law enforcement planning. Just as the study found little consideration of law enforcement in planning Corps recreation areas, it was also found that law enforcement agencies do little planning that would be suitable as an input to planning a recreation area. If recreation goals are to be met at a recreation area, and if law enforcement efforts are to serve the goals of a recreation area, then law enforcement planners will need to better address their practices to the park and recreation environment.

#### C. Establishment of a Comprehensive Recreation Program

The role of Corps rangers focuses on controlling and assisting visitors in the use of developed facilities and lake resources. The Corps does not provide recreation leadership in the form of programming organized or unorganized activities, or providing special facilities that reflect the variety and flexibility of changing recreation interests of urban populations.

A comprehensive recreation program involves three essential elements: (1) resources, such as areas, facilities and equipment (and the management thereof); (2) programs, such as organized and unorganized, group or individual activities; and, (3) leadership--the provision of encouragement, assistance and education in participation of these programs. To manage resources alone is only part of the recreation job. Improved

law enforcement, both in the form of services of peace officers and rangers and in park management techniques, provides security for the individual recreationist. This feeling of security in pursuing his or her recreation interest is a requisite to achieving a fulfilling experience. Similarly, the same security provided to the natural resources and developed facilities maintains a quality of usefulness of the recreation environment which is also essential to satisfaction of the individual.

The study revealed, however, that few lake managers or rangers felt an expanded program of recreation activities would have anything but minimal effect on improving visitor protection and law enforcement. The expression of this attitude was, in one instance, made at a Corps lake surrounded by several overlapping metropolitan areas, with each having local recreation agencies providing organized recreation programs. The juxtaposition of the two obviously different attitudes and philosophies reflects the basic differences between a "resource" oriented and a "people"-oriented view of recreation management roles.

Findings of a national survey of crime and violence in park and recreation areas conducted by the American Park and Recreation Society (APRS) revealed the incidence of crime and vandalism as higher in parks than in community centers, playgrounds or other special recreation facilities<sup>1</sup>. The survey further indicated the incidence of crime and vandalism increased with more intensive use of parks. In most urban park and recreation systems, recreation programming and supervision is generally directed at special activity areas and facilities. Park areas, as such, usually receive little recreation activity service.

Thus looking at this problem from a recreation perspective, there appears to be as much a connection between lack of recreation leadership and crime in park areas as there is between a lack of law enforcement surveillance and crime. Stated more clearly, the incidence of crime and vandalism is lower in areas where recreation programs more actively involve people. While both Corps and APRS surveys revealed the general opinion that the main remedial measure for controlling crime and vandalism involves increased security efforts, the benefits of



increasing recreation program efforts in high crime park and recreation areas still appears to have been overlooked.

It is not the purpose here to criticize the Corps of Engineers from a recreation policy standpoint. In actuality, when considering the overall budget constraints it has been working under, the fragmentation of recreation management in general at the federal level, and the fierce competition recreation still faces against other resource and public works development programs, the Corps tenaciously manages to do a fine job. But, nevertheless, until the Corps and other federal resource management agencies extend their programs into people-related programming and leadership, the federal effort in recreation will remain incomplete.

#### The Need for a Comprehensive Recreation Goal.

The fundamental importance of the recreation goal in providing law enforcement in park and recreation areas is succinctly expressed by Mr. Jack W. Robinson, Director of the Austin Parks and Recreation Department, in stating the goals of Austin's park rangers:

"Our goal is to maintain a presence in the parks for the security of park visitors, and to provide public assistance to insure the maximum visitor enjoyment. Austin Park Ranger effectiveness is not measured by the number of tickets or citations issued, but rather, on the rangers' image of friendliness and helpfulness to the park visitor while carrying out law enforcement action when necessary."

The Corps recreation area manager or ranger will need to adjust to different roles and be prepared for even more adjustments in the future. Illustrative of this concept are the following quotes from a recent annual report on the California State Parks System:

". . . Today they (rangers) must be managers of people, with the responsibility of educating, informing, and keeping from harm the millions who visit the parks each year. These increased responsibilities have created new recruitment and training problems that must be solved . . ."

"The rangers are becoming ever more deeply involved in interpretive programs. In response to public demand, they have developed campfire programs, nature study walks, slide shows on a wide range of subjects, and guided hikes and tours--and many more such programs are needed . . ."

"The importance of the increasing ranger involvement in interpretive programs cannot be over-estimated because such programs do far more than simply entertain the public. In the long run, interpretive programs help preserve the park resources by teaching the public their value. In the words of a veteran park ranger, 'A quality environmental experience should be our goal. A bored child or his bored family can do more damage to a park through lack of awareness and ignorance than we can cope with through regulation and enforcement. We can either educate the public or we can attempt to regulate it. There are not enough rangers, firearms, or patrol vehicles to protect a park from visitors who do not care about it.'"

Law enforcement and visitor protection services would be more effective and more easily provided if they were part of a more comprehensive recreation program of the Corps. Law enforcement should be viewed as an extension or a component element of an overall program of meeting recreation needs at Corps lakes. It is as much a part of a visitor recreation program as providing campground facilities.

From a comprehensive standpoint, a visitor protection policy associated solely with a program of managing natural resources and facilities for recreation use is doing less than the total job. A recreation program including activity, education and leadership would result in a better understanding and ability for visitors to use recreation areas. The result would be enhanced satisfaction and greater fulfillment of recreation experience, and a decrease in the propensity for antisocial behavior.

#### Visitor Management

The previous laissez faire philosophy of the Corps towards visitor activity described by Edward C. Crafts in 1970, appeared to be still visible throughout the present study. Crafts stated:

"Prevalent was a practice of lax, indifferent, or loose administration founded on the philosophy of leaving people alone to do what they want. This may be partly a subconscious extension of Corps "good-guy" philosophy . . . More fundamentally it is failure to appreciate or accept the public-management responsibility which the Corps has to protect the resources and facilities entrusted to it, as well as to protect, lead and service the users of such public property. In stronger terms, it is an abdication of management responsibility."

"From such permissiveness, indifference or inability to act stems part of the Corps problems on fees, enforcement, vandalism, crowding, exclusive private use, etc. Loose administration is believed partly deliberate policy, partly a feeling of helplessness, and partly the result of insensitivity, frustration, and immobility of Corps personnel."

More recreation leadership could be reflected in the design of varied and flexible facilities at heavily used areas. This would also provide a management tool for distributing use to better reflect resource capabilities. The increase in interest and activity may also lessen the propensity of antisocial behavior and improve appreciation for project resources. Such leadership should also include recreation program services, such as interpretative programs with more visitor involvement, and other programs oriented toward and consistent with Corps lake resources.

In planning and designing a recreation area, recreation planners should consider such parameters as kind of activity, density of users, location, and time, in matching recreation uses with the character of project resources. These same parameters may also be used as variables in formulating law enforcement and visitor protection plans. Additionally, recreation areas subject to a history of higher crime rates and disturbances may receive priority attention for allocation of recreation program resources along with more intensive development and management and law enforcement services.

The provision of recreation areas, facilities, and programs, as well as responsive visitor protection service, will require more

attention be given to assessing the recreation needs of existing visitors and potential user populations. The continued development of more picnic sites, campgrounds, boat launching ramps, restrooms and showers, and other facilities alone will not fulfill the rising expectations, or eliminate frustrations, of urban-oriented recreation visitors. Moreover, there will be many instances where recreation needs may be met through provision of services rather than more expensive capital investment in facilities.

#### Behavioral Considerations in Visitor Protection Planning

While understanding of antisocial behavior in park and recreation areas is generally limited, several studies and surveys are mentioned in this section to illustrate the kind of insights, park practices, and visitor assistance that may evolve with further exploration.

There is some evidence that suggests a significant portion of antisocial behavior could be ameliorated by increased recreation education and environmental direction by rangers and park police. The APRS national crime survey found that over one-third of the destruction and vandalism reported in parks were caused by accident.

A study of depreciative behavior in forest campgrounds provides some preliminary insights into the nature of such behavior.<sup>5</sup> The observations of vandalism, littering, and other disturbances by campers, in this case, may provide some initial directions for developing control measures at Corps recreation areas where similar acts occur. From a park practice standpoint, responsive control measures may be reflected in planning, design and construction, resource management and maintenance, recreation programs, such as interpretative programs or outdoor education, and activity programs. These practices should be implemented in coordination with law enforcement efforts.

The distribution of depreciative acts by type is summarized in Table 18-1. This table shows that the majority of depreciative acts were not intentional crime and vandalism.

TABLE 18 - 1

## Percent of Depreciative Acts Observed

| <u>Depreciative Act</u> | <u>Percent</u>          |
|-------------------------|-------------------------|
| Nuisance acts:          |                         |
| Excessive noise         | 5.8                     |
| Health hazard           | 5.8                     |
| Unesthetic              | 2.9                     |
| Violations of privacy   | 5.8                     |
| Pets                    | <u>79.8</u>             |
| Total                   | 100.12<br>(49.9)        |
| Vandalism:              |                         |
| Private Property        | 9.1                     |
| Campground facilities   | 61.8                    |
| Natural environment     | <u>29.1</u>             |
| Total                   | 100.02<br>(13.2)        |
| Law violations:         |                         |
| Campground rules        | 46.8                    |
| Traffic rules           | 29.2                    |
| Civil laws              | 1.3                     |
| Theft                   | 2.6                     |
| Littering               | <u>20.1</u>             |
| Total                   | 100.02<br><u>(36.9)</u> |
| Total depreciative acts | 100.02                  |

(Source: R. N. Clark)

\*Depreciative acts in this study are classified as follows:

Nuisance acts reflected behavior essentially a bother or annoyance to other campers which might or might not violate campground rules or other legal restrictions. Examples are excessive noise, violations of privacy (such as unsupervised children running through other parties' camps), and intentionally freeing pets to roam the campground.

Vandalistic acts included deliberate, destructive or defacing acts committed against private property, campground facilities, or the surrounding environment.

Legal violations were acts which violated campground rules, traffic regulations, and local or state laws.

In another observation, as depicted in Table 18-2, it was apparent that most depreciative acts were associated with entertainment activities (38.7 percent), camp chores (20.7 percent), and moving through the camping area (20.7 percent).

Thus, these acts were the result of disregard or ignorance of the (depreciative) act itself as revealed by Table 18-3. Motivations of "convenience," such as cutting a nearby sappling tree for firewood rather than walking or driving to an appropriate source, appear to be of a lesser incidence.

These relationships suggest that criminal deliberateness is not a predominant motive of such behavior and that a means of improved education could have significant impact in reducing the problems.

The study further found that more than 80 percent of the depreciative acts occurred in the vicinity of bystanders as displayed in Table 18-4. However, this table also reveals that 70 percent of the bystanders appeared to have no reaction. This would further support the implication that improved education and understanding of recreation area purposes and rules would establish a better peer consciousness as a deterrent to depreciative acts in front of others.

These observations suggest that increased assistance and surveillance, such as by Corps rangers, would; 1) enable greater instructive control; 2) warnings from a ranger would likely have beneficial results; and, 3) the requirement to exercise citation or arrest authority for

TABLE 18-2

## Percent of Associated Activity when Depreciative

## Acts were Committed

| <u>Depreciative Act</u>    | <u>Enter-<br/>tainment</u> | <u>Camp<br/>Chores</u> | <u>Nature<br/>Study</u> | <u>Social<br/>Inter-<br/>action</u> | <u>Moving<br/>through<br/>Camp</u> | <u>Total</u> |
|----------------------------|----------------------------|------------------------|-------------------------|-------------------------------------|------------------------------------|--------------|
| Nuisance acts              | 52.3                       | 4.5                    | 4.5                     | 20.7                                | 18.0                               | 100.0%       |
| Vandalism                  | 39.3                       | 25.0                   | 35.7                    | 0                                   | 0                                  | 100.0%       |
| Law violations             | 27.3                       | 33.3                   | 1.5                     | 10.6                                | 27.3                               | 100.0%       |
| Total depreciative<br>acts | 38.7                       | 20.7                   | 6.3                     | 13.7                                | 20.7                               | 100.1%       |

(Source: R. N. Clark)

TABLE 18-3

## Apparent Motivation for Depreciative Acts

| <u>Depreciative Act</u>    | <u>Enter-<br/>tainment</u> | <u>Con-<br/>venience</u> | <u>Dis-<br/>regard</u> | <u>Ignorance</u> | <u>Rules<br/>Interfere<br/>With Goal</u> | <u>Total</u> |
|----------------------------|----------------------------|--------------------------|------------------------|------------------|------------------------------------------|--------------|
| Nuisance acts              | 16.0                       | 5.0                      | 14.3                   | 64.7             | 0                                        | 100.0%       |
| Vandalism                  | 32.3                       | 6.5                      | 45.2                   | 16.1             | 0                                        | 100.1%       |
| Law violations             | 16.7                       | 10.0                     | 47.5                   | 6.7              | 19.2                                     | 100.1%       |
| Total depreciative<br>acts | 17.9                       | 7.3                      | 33.3                   | 33.3             | 8.4                                      | 100.2%       |

(Source: R. N. Clark)

TABLE 18-4

## Percent Reaction of Bystanders to Depreciative Acts

| <u>Depreciative Act</u>    | <u>No One<br/>Around</u> | <u>Approved<br/>of Act</u> | <u>No<br/>Reaction</u> | <u>Ignored<br/>Act</u> | <u>Commented<br/>to Others</u> | <u>Notified<br/>Ranger<br/>Later</u> | <u>Notified<br/>Ranger<br/>Immediately</u> | <u>Confronted<br/>Offender</u> | <u>Total</u> |
|----------------------------|--------------------------|----------------------------|------------------------|------------------------|--------------------------------|--------------------------------------|--------------------------------------------|--------------------------------|--------------|
| Nuisance acts              | 9.1                      | 0.5                        | 78.7                   | 2.5                    | 4.6                            | 0.5                                  | 0.0                                        | 4.1                            | 100.0%       |
| Vandalism                  | 52.9                     | 0                          | 44.1                   | 0                      | 0                              | 0                                    | 2.9                                        | 0                              | 99.9%        |
| Law violations             | 17.9                     | 1.4                        | 65.7                   | 4.3                    | 8.6                            | .7                                   | .7                                         | .7                             | 100.0%       |
| Total depreciative<br>acts | 17.1                     | .8                         | 70.1                   | 2.9                    | 5.6                            | .5                                   | .5                                         | 2.4                            | 99.9%        |

(Source: R. N. Clark)

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malicious or serious acts would be used as a last resort. Further evidence for this conclusion is found in the PRC/PMS survey finding that over 90 percent of the verbal warnings to recreation visitors by rangers for the purpose of correcting their behavior received cooperative reactions (Table II.N. of findings volume).

Such conclusions based on a single campground study (with simple observation techniques) offer little more than a working hypothesis for continued inquiry. The tentative conclusions clearly suggest, however, an optimistic outlook for designing better visitor protection and law enforcement measures for Corps recreation areas with improved understanding of depreciative behavior and its impact on others and the environment.

Another study involves the concept of "defensible space" as coined by Oscar Newman. His definition of the term is as follows:

"Defensible space is a surrogate term for a range of mechanisms--real and symbolic barriers, strongly defined areas of influence, improved opportunities for surveillance, that combine to bring an environment under control of its residents."<sup>6</sup>

A study of defensible space in urban setting was based upon the proposition that areas can be created for which people will adopt concern for security, and if design methods were sufficiently sensitive, "it would be possible to predict and control a wide range of behavior and social relationships through provision of particular architectural settings."<sup>7</sup> Areas, such as parks or recreation facilities, can be designed to indicate a particular use or group of people associated with a certain norm of behavior. Antisocial behavior is thus inhibited by "creating the physical expression of a social fabric (cohesiveness) that defends itself."<sup>8</sup> Malicious intent is deterred where space controlled by users is perceived.

One implication of this theory is that recreation areas at Corps lakes could be better designed to focus or cluster common activities in common spaces. Landscaping could be used to identify activity

spaces, while at the same time provide adequate views and access for security purposes. The similarity of recreation purpose would give a certain amount of homogeneity to users, and establish a normative behavior pattern. A subtle, but effective peer consciousness could develop which would provide a deterrent to antisocial behavior.

For those who wish or desire to recreate in the security of others, the design principle of clustering may be useful. In such clustering, visibility is an important desire of self-surveillance and detection. Even in using the defensible space theory, the support of protection assistance of a ranger or law enforcement officer is necessary.

Alternately, other visitors may desire solitude in their own or isolated space. Flexibility and variety in design of recreation areas will be needed to accommodate individual pursuits of leisure and to provide overall protection and law enforcement.

While Newman's notion of defensible space is aimed at urban environments, the basic concepts of this theory are clearly applicable to the design of Corps recreation areas, including:

- Elimination of multiple access roads;
- Lighting of developed areas;
- Control points to limit access to a developed area once maximum capacity is reached;
- Increase visibility of use areas to facilitate observation by police patrols (e.g., elimination of unnecessary shrubbery);
- Creation of "personal security" areas wherein territorial space is delimited and where barriers, real or symbolic, are utilized;
- Creation of special use areas (e.g., for mini-bikes, off-road vehicles);
- Well planned and controllable traffic patterns;
- Elimination of hazard areas;

- Utilization of design concepts to maximize group cohesion and social controls;
- "Vandal proofing" of project facilities;
- Provision of emergency communications systems.

Some of these design considerations are discussed further in following sections of this chapter.

#### Education and Involvement

An education program oriented towards visitors and local communities is also a valuable component of a comprehensive outdoor recreation program.

Visitor education should receive much more focus than it currently does. The mere posting of Title 36 probably has little impact on users. In fact, all that it seems to do is enable management to enforce the rules. A more positive approach, one more clearly based upon good communication principles, would not be difficult or expensive to develop. Most of the necessary work could be done by a small group of skilled professionals, and supplied with the appropriate information, materials could be custom made for each facility.

If visitors are cognizant of the rules and perceive their necessity and understand that management clearly knows how they (management) want things run, the majority of visitors will be accommodating. It would seem modest investments in this area would be very cost-effective.

A vast amount of vandalism and other sorts of disturbances originate within the local communities. This points the way not only to user education but community education as well. The existence or non-existence of community education programs seems to rest much more on attitudes of the District Engineer or lake manager than upon costs of the program (which are minimal).

The District Engineer of the Rock Island District stated in an interview:

"Conduct of people on Corps lands and lakes such as Red Rock is strongly influenced by local public opinion, customs, traditions, and standards. The real deterrent is the community itself. I would point out that the Red Rock Lake Association exerts a positive and restraining influence upon the conduct of visitors to the lake who are from the surrounding and adjacent areas."

Channels of education and communication with local communities also result in useful feedback to guiding planning and management to be more responsive to local interests. For example, the U.S. Soil Conservation Service has maintained a successful community education program over the years. The manager of Lake Wright Patman is involved in community activities, speaks to civic organizations, clubs and schools in Texarkana, and maintains a good working relationship with the county sheriff and city police. The Corps lake manager in this case maintains a personal involvement with the local community with beneficial results. The establishment of a recreation area advisory committee of local citizens to work with lake managers or District Engineer is another approach.

#### D. Use of Operation and Maintenance as a Deterrent

There are a number of ways in which improved operation and maintenance of Corps recreation areas may serve to deter antisocial behavior such as littering and vandalism and reduce costs. Cost reductions can be achieved either by reducing O&M costs alone, or by reducing longer range combined capital and O&M investment. Some of the possibilities are described in the following section.

##### Keeping O&M Current

Many park and recreation administrators believe maintaining clean and neat areas serves as a deterrent to littering and well-designed facilities--esthetically and functionally--deter vandalism. This intangible relationship has not been studied enough to significantly verify a direct correlation, however, many reservoir managers and

park rangers as well as local park administrators in this study have observed this relationship to be the case in their areas. They reported that when their picnic areas and roadsides were clean, there was often minimal litter thrown about, but when litter did begin to appear, it accumulated rapidly. Obviously, people would tend to throw waste materials about where it appeared to make little difference. Conversely, as litter would be more conspicuous if the area were clean, often a second throw would divert the empty soda can to the trash receptacle.

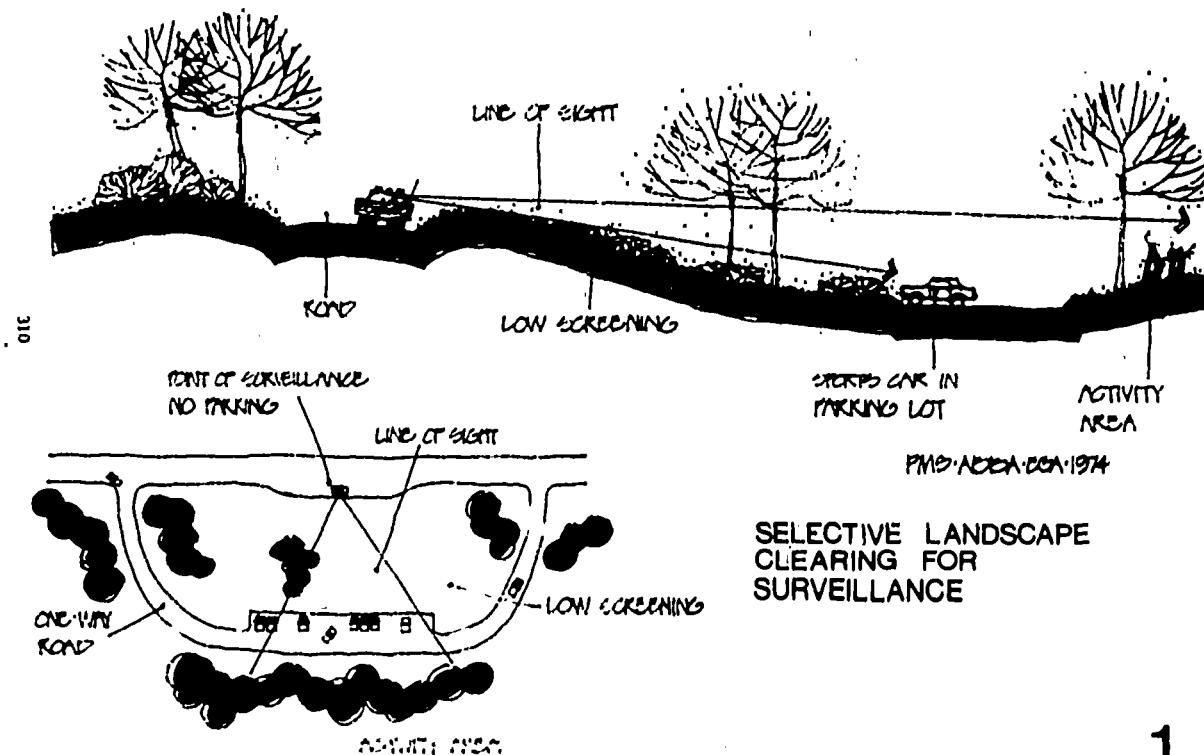
The effects of vandalism also seems to encourage more vandalism. Some park managers firmly believe that attractively designed and well maintained facilities, such as restroom and shower facilities, are less harshly treated than austere, or even "ugly" buildings serving the same purpose. Additionally, quick repair of vandalized facilities appears to be related to minimal vandalism. If a light in a parking lot is left broken, it seems more inviting to break more.

#### Increasing the Use of Portable Facilities

This approach involves the investment of O&M in portable facilities (e.g. restrooms) which are removed when not in use. The Houston park administrators have found this approach to have considerable advantages over the increasing costs and questionable effectiveness of "vandal-proofing" these facilities.

#### Practicing Selective Landscape Clearing

Careful landscape trimming is important in maintaining views for surveillance from patrol cars, while, at the same time, maintaining selected undergrowth vegetation and trees, as shown in Sketch 1. Such trimming will, in most instances, require two people--one positioned from a surveillance viewpoint, and the other trimming at his direction. Considerable sensitivity for the landscape and an understanding of efficient surveillance perspectives is an important requisite for guiding this kind of maintenance trimming.



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#### Improving O&M Cost Accounting

Improved cost accounting for O&M expenditures is needed in order to establish effectiveness measurements of litter, vandalism and other visitor protection related O&M costs.

#### Controlling Water-Borne Facilities

The growing number of large cabin cruisers and self-propelled houseboats (including some in the form of trailer homes mounted on pontoons) is an emerging problem which should be carefully monitored. This new type of equipment should be: (1) used for intermittent recreational purposes rather than permanent habitation; (2) controlled with respect to water pollution; (3) prevented from usurping an undue amount of space in concession areas and interfering with services to smaller craft; and, (4) prevented from evolving into the equivalent of "floating villages."

#### Instituting Modern O&M Practices

This involves keeping up-to-date in planning and designing for effective O&M. There are many advanced developments in litter cleanup equipment such as vacuum pick-up equipment or vandal-proof facilities that could be used at Corps recreation areas. It was observed during the study that the latest in techniques or technology for park maintenance were seldom reflected in the design of areas or in O&M operations.

#### Other Measures

Other O&M measures which would facilitate improved visitor and resource protection include the following:

- Expansion of authority to require concessions and private facilities such as cottages, homes, clubs, boathouses and docks to maintain adequate maintenance, safety standards, and equipment. Permits for rundown, abandoned or otherwise poorly maintained facilities should be revoked if not corrected within a reasonable time, and removed by the Corps. Illegal encroachments should also be subject to direct Title 36 enforcement.
- Employment of retired couples to live in strategically placed cottages or trailers (temporarily only) to provide surveillance and visitor assistance.

- Including the enforcement of sanitation and public health regulations under the provisions of Title 36.

#### E. Visitor Communication

Communication, if used properly, is a very effective tool. However, in a recreation setting, communication is quite a complex matter involving, (1) communicating to the visitor the purpose of the recreation area and the regulations for its use; (2) communicating to the law enforcement officers the need for visitor protection and assistance; and, (3) coordinating the variety of communication means, such as personal contact, signs, and lights.

Some of the communication difficulties apparent from the field surveys of the Corps lakes were that few Corps areas had attendant gate accesses to provide instructions and information; few had an adequate number of visitor areas where emergency assistance could be summoned; a ranger's flashlight peering in a campground at night cannot be differentiated from a "prowler;" too many signs detract from the esthetics of the landscape; and not all Corps mobile radios had connecting frequency channels with local or state law enforcement.

Often the overall needs for communication are inadequately assessed when expediency is principally involved in selecting and purchasing radio equipment for project headquarters and patrol cars. Such equipment is important, however, there is also need to take a close look at developing improved means of visitor communication within the milieu of the recreation area environment. Unfortunately, this problem cannot be solved by purchasing traditional pieces of equipment. More study will need to be given to this problem in visitor protection and recreation planning.

The process of communication is closely interwoven with the information to be transferred, the method of communication, and the environment within which the communication takes place. When a visitor enters a Corps recreation area, the visitor should have an understanding of the



purpose of the area, rules for its use, the location and kinds of recreation facilities available, and how to get assistance if needed.

There appeared to be a wide range of approaches to visitor information at Corps lakes, ranging from an elaborate new visitor center at project headquarters at J. Percy Priest Lake at Nashville, to virtually no information available at some of the other lakes.

Effective communication of information could improve visitor conduct through the education and values that are also gained by visitors. The personal orientation also enables a fuller pursuit of recreation experience and an improved sense of security by knowing assistance is available if needed.

Some examples of communication processes that would improve both the quality of recreation experience and enforcement of rules and regulations are described below.

### Signs

Signs are perhaps the most common technique used to communicate information. At the same time, however, the increasing number of signs needed to communicate information has become an environmental problem. There are ways by which signs could be improved:

- Use of symbols to communicate, such as the U.S. Department of Interior's symbol system partially shown in Figure 18-A.
- Providing paved pull-overs to allow visitors to read information signs without blocking traffic. An example would be to locate large informational signs before the entrance gate as shown in Sketch 2.
- Careful consideration must be given to sign language so regulations and other information is displayed briefly and succinctly. Substitute symbols wherever possible for rule and direction statements.
- Painting signs on pavement, such as speed limits, whenever possible to eliminate a sign post.

FIGURE 13-A

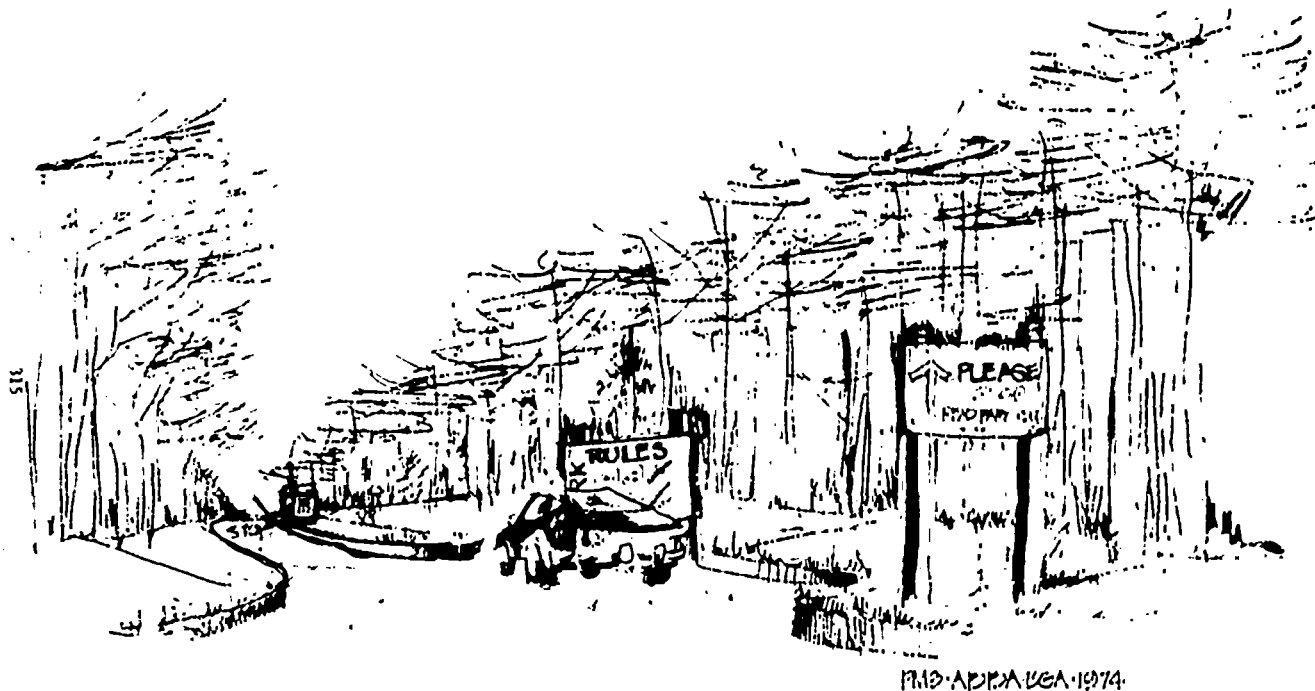
Proposed Symbol Signs for Public Use and Recreation

GENERAL

|                                                                                     |                                                       |                                                                                     |                                                                |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|
|    | Area Where Firearms are Permitted                     |    | Location of a Dam                                              |
|    | Area Where Smoking is Permitted                       |    | Area Where Bears are Frequent and Might be Viewed by Visitors  |
|    | Roadway or Other Facility Where Automobiles Permitted |    | Drinking Water                                                 |
|    | Roadway Where Trucks Permitted                        |    | Fish Hatchery                                                  |
|    | Tunnel                                                |    | Area Where Deer are Frequent and Might be Viewed by Visitors   |
|    | An Observation, Look-out or Fire Tower                |    | Visitor Information                                            |
|    | A Light House                                         |    | Ranger Station or Administrative Office                        |
|   | Area of Falling Rocks                                 |   | Road Crossing Permitted                                        |
|  | Area Where Pets Under Physical Control Permitted.     |  | Environmental Study Area or Special Environmental Program Area |

Source: Federal Register, Vol. 38, No. 220, pp. 31511-31515.

2886



PHOTOGRAPH 1974

PROVIDE PULL OVERTS FOR MAJOR INFORMATION  
AND REGULATION SIGNS

2

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- Coordinating signs for direction and location with the brochure map. Using guide reference markers on selected signs and placing north arrows on the road or under location reference signs allows visitors to coordinate the sign and map locations.

#### Telephones

If possible, a telephone should be provided within walking distance of a developed day use area or campground. One telephone per developed recreation area should be a minimum for emergency call purposes. As stated previously, reluctance of telephone companies to extend lines to a distant recreation area could be overcome by the Corps subsidizing the marginal costs required to meet phone company expenses. The telephone system should be contained in a vandal resistant box, and not require a coin deposit to call the operator or the standard 911 emergency number if it has been implemented. The design of an esthetically pleasing telephone booth system to coordinate with the outdoor landscape would be desirable. However, the telephone booths should be located adjacent to roads, in clear view, rather than within a closely landscaped situation.

#### Brochures

Brochures can provide a useful reference guide to the Corps recreation area. Review of many Corps brochures revealed the need to improve orientation between map and ground locations. Reference points throughout a project area should be established and graphically coordinated with the map brochure. Locations of telephones and other sources of emergency assistance should be clearly represented on the maps. Rules and regulations of recreation area use should be included in the brochure. A distilled version of Title 36, including substitution of symbols where possible, should be developed for brochure use.

#### Automobile Radio Broadcasts

The transmitting of recorded information over a localized automobile radio frequency within recreation areas is another communication technique that was used successfully, such as at Yellowstone National

Park. Emergency assistance information could be interspersed with dialogues on project history, natural environment and recreation activities. Explanation of recreation area values and rules could also be tactfully interjected.

#### Interpretative Talks

Interpretative talks by rangers are considered a very useful means of educating visitors on the values of outdoor resources and their prudent use. Some interpretative talks occur at Corps recreation areas, but for the most part, there is little time provided in the ranger's duty hours to develop good interpretative programs. The establishment of more visitor oriented programs, particularly those with increased visitor involvement (as distinguished from resource management-oriented programs) could have a significant impact on reducing visitor disturbances and nuisance of project resources.

From the law enforcement and visitor protection standpoint, communication must be effective, accurate, and swift. The use of up-to-date communications techniques and technologies can both add to the enjoyment of the recreation visitor as well as increase the level of security. The state of the art in graphic design, electronic communication technology, and understanding the behavioral responses to perceived information is quite far advanced over that presently implemented at Corps lakes. Further inquiry into the behavioral responses to improved information, education and communication at Corps recreation areas would likely reveal many areas where the quality of recreation experience could be easily enhanced.

#### F. Use Fee Areas

The study found the incidence of crime or disturbances was lower in campgrounds where fees were collected. Litter and vandalism was also lower in fee areas. Corps rangers and managers stated the reasons for this was the fact that a uniformed attendant was usually present at the access, or came around to the campsite in the evening to collect the

fee. This provided a sense of security, for which people are willing to pay. This finding also agreed with a previous study mentioned earlier.<sup>9</sup>

While the question arises regarding double-taxing, that is, whether public funds should pay for O&M as well as for the cost of the land, water development and special recreation facilities, it has been calculated that the fee charges required to support an effective visitor protection program would involve a very low per-capita visitor fee. Moreover, while fees are still a controversial issue, nevertheless, it appears that the public is accepting the notion of paying direct costs of special facilities and services used.

Visitors could also have a hypothetical choice of selecting a kind of recreation program supported with a use fee, or opt for the level of development and service (visitor protection) they now receive through the federal budget process.

The fee program at Corps lakes has been inconsistent over the past few years due to changes in federal legislation. It seems clear that in spite of the adverse reaction of people in certain areas of the country, the approach of fees to support the quantity and quality of recreation facilities and programs will need to be very carefully considered.

#### G. Access and Circulation

The following guidelines may be used to design access and circulation within a recreation area to improve visitor protection and law enforcement. These guidelines may be applied in conjunction with the normal planning and design objectives of providing safe, convenient, efficient and environmentally integrated roadways at recreation areas.

##### Single Access Points

Single access or entrance points to a recreation area offers the most effective control. Management functions such as attendance

counting, fee collection, distribution of information and rules literature, surveillance and establishing personal contact with visitors may be easily accomplished, as shown in Sketch 3. Attendants at an entry gate provide good public relations and establish a sense of security. It also renders a deterrent influence to antisocial intentions.

At areas where multiple access points exist, entrance could be restricted to one point with other accesses limited to exit traffic. This could be accomplished by using one-way traffic barriers such as drive-over fork gates, as shown in Sketch 4.

#### Traffic Control

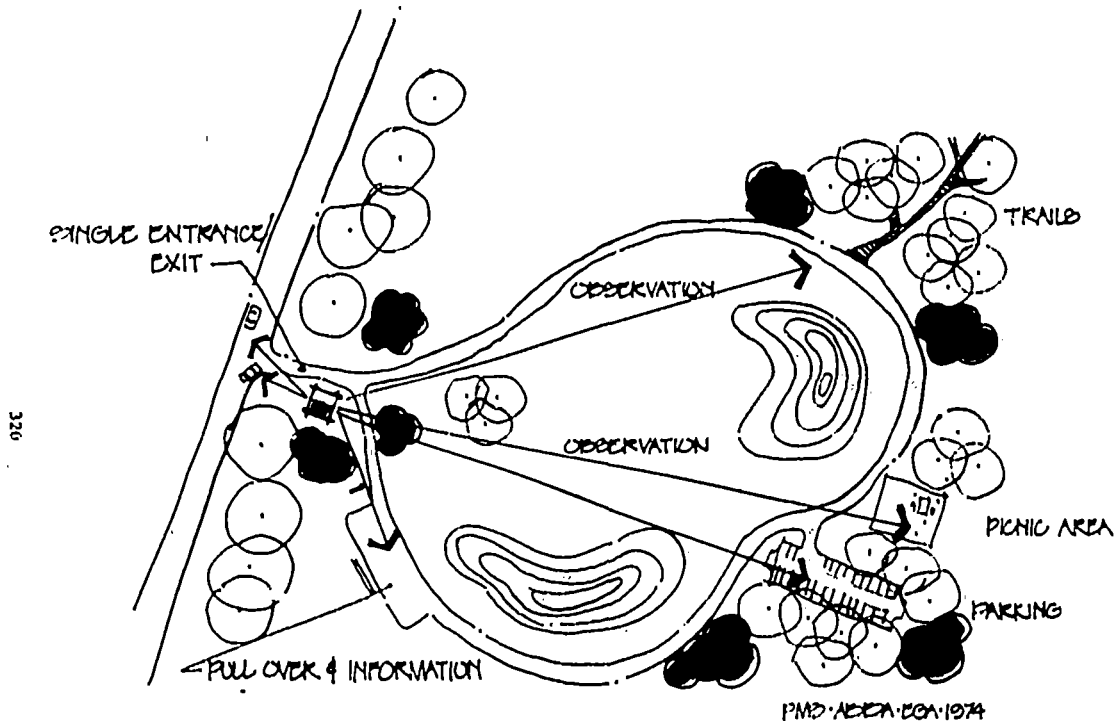
Traffic control is one area of ranger duty that can utilize automatic control systems, and thereby enable the ranger to concentrate more on other activities. Speed control can be accomplished by automatic light or sound warning and photographing devices that activate upon sensing excessive speed. Other control and warning methods include speed bumps and pavement texture, as shown in Sketch 5.

Painting lines or placing roadside markers at predetermined intervals to measure speed has been used successfully by some Corps rangers. Painting speed limit numbers on road pavement can eliminate another sign from the roadside environment.

#### Road Shoulders, Pullovers, and Turn-arounds

Roadside space can be provided at planned intervals to allow visitors to pullover to read information signs and to enable ranger patrol to pause for surveillance views. Many of the roads in Corps recreation areas do not have adequate shoulders for such use. Important information signs should have paved pullovers, as previously shown in Sketch 2.

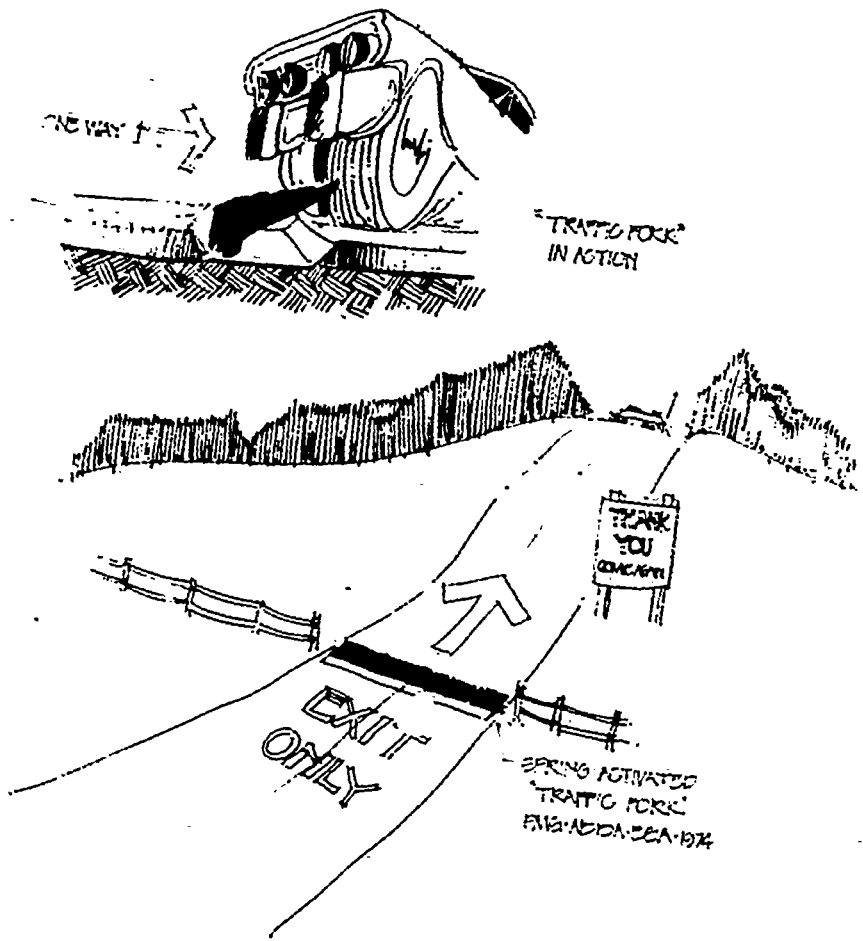
No parking should be allowed in these off-road areas. Painted lines along road pavement denoting no parking is preferable to adding more signs to the roadside environment.



SINGLE ACCESS POINTS PROVIDE EFFECTIVE CONTROL



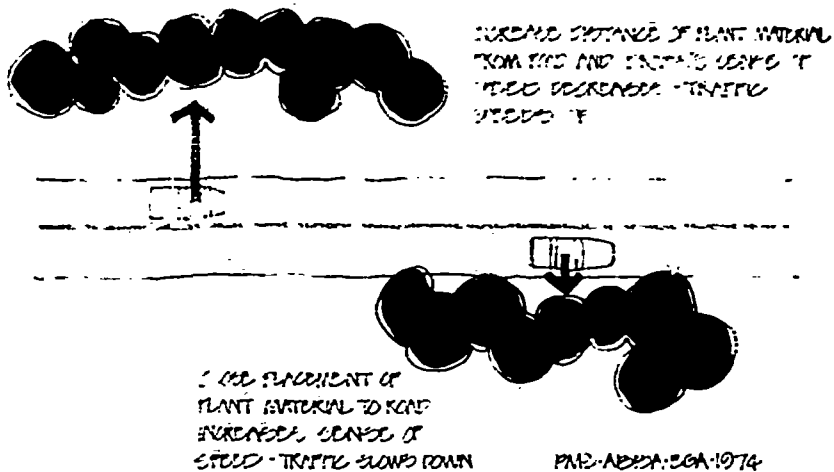
ONE WAY TRAFFIC BARRIERS RESTRICT ENTRY  
TO DESIRED ACCESS POINTS



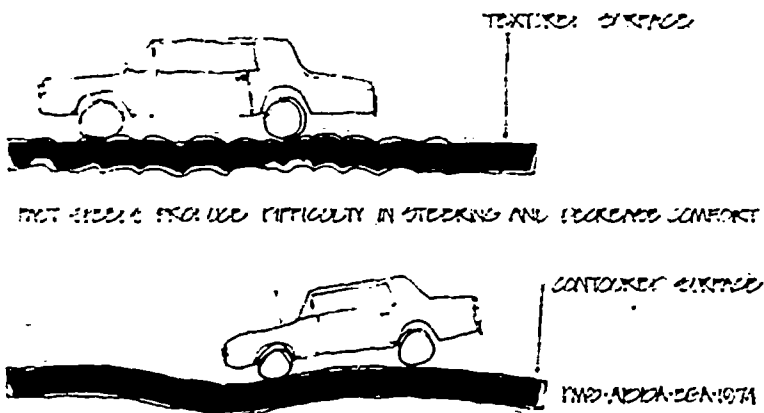
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### NATURAL SPEED CONTROLS



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Space to enable safe turn around should be provided at intervals of not greater than one mile along narrow circulation roads.

#### Roadside Landscaping

Improved views for roadside patrol surveillance can be accomplished by selective trimming. Views can be opened into and through use areas (Sketch 6). The viewpoint itself may be narrow, perhaps only a few feet wide, but then opens to a broader vista. From the use area, the viewpoint may be unnoticeable, as shown in Sketch 7.

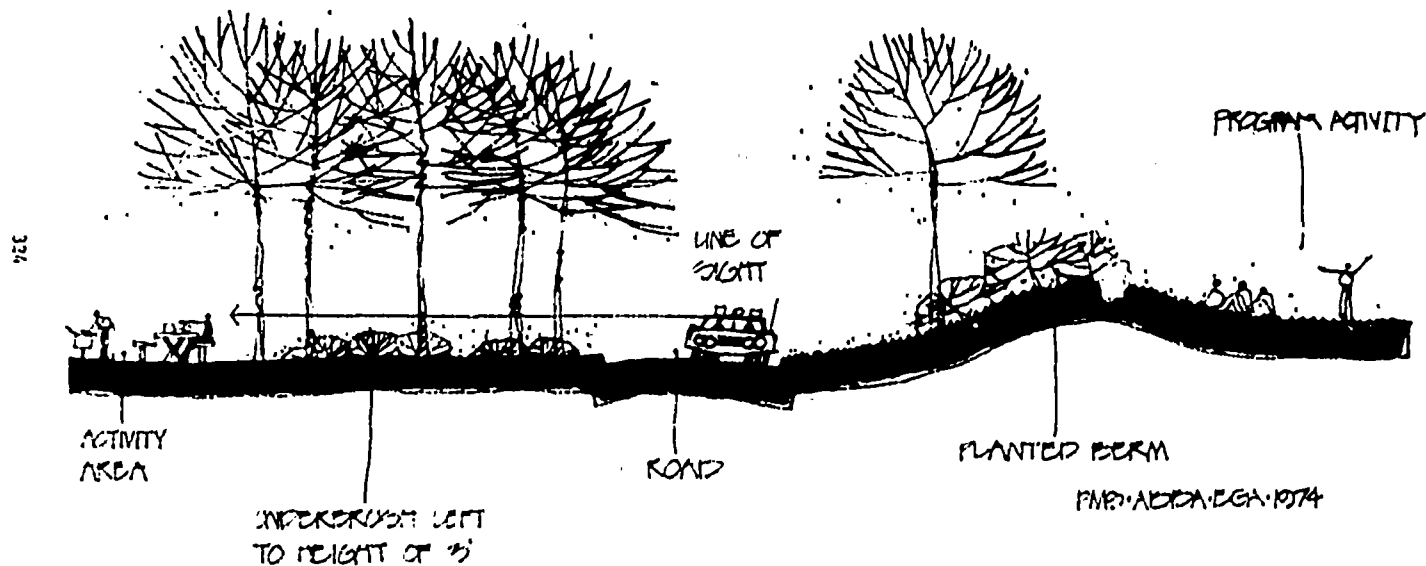
Such viewpoints provide the rangers or law enforcement officers with an option of viewing a use area from a distance, rather than going into the area demonstrating his visible presence. While occasionally seeing a ranger or officer gives visitors a sense of security and serves as a deterrent to disturbances, this must be sensitively balanced with overbearing presence. If not, the ranger or officers presence may then offend an individual or group's sense of privacy. A park ranger with extensive experience in dealing with visitors is normally able to sense how he or she is being received by visitors. There are times to be seen, and times not to be seen. Effective surveillance to ensure visitor protection thus requires good judgment in its practice.

#### Parking Lots

Many larcenies at Corps lakes are associated with parked automobiles. Parking areas can be developed in open view as much as possible as a deterrent to theft. View corridors between parking and use areas can be selectively cleared to enable visitors to locate their activity within visibility of their automobiles.

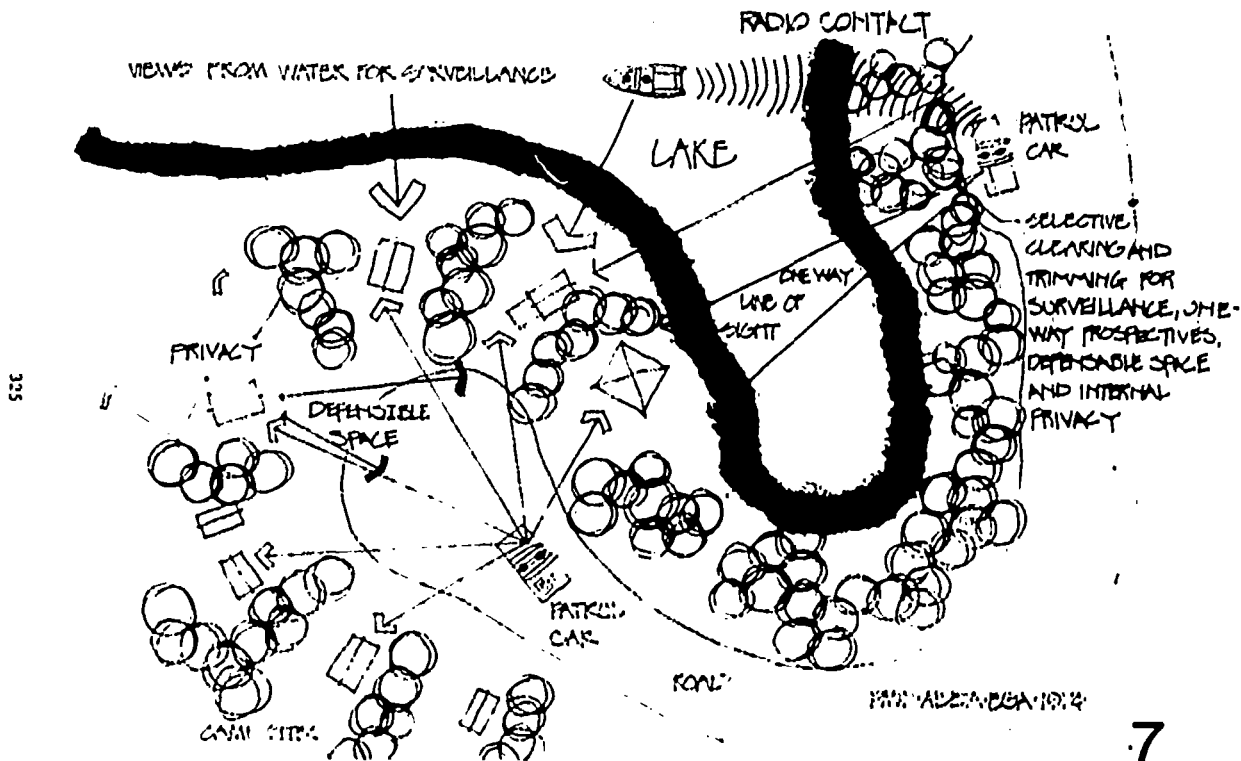
#### Trails

Trails are not normally a major recreation facility developed at Corps lakes, although at a few recreation areas there are good trail networks being developed. Emergency access, such as fire protection routes, often double as trails. Trails, where provided, do offer opportunity to extend visitor and resource protection into project lands



SELECTIVE TRIMMING FOR SURVEILLANCE: VISUAL CORRIDORS

6



SELECTIVE TRIMMING FOR SURVEILLANCE :  
VISUAL CORRIDORS

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beyond developed recreation areas. Use of appropriately powered and wheeled off-road vehicles (ORV's) or horses offer effective means of extending visitor protection along trails. ORV's may also be used for maintenance. Litter, vandalism, and fire hazards are often severe along trails because they are so seldom patrolled, and normally receive low priority on maintenance schedules. This is generally true for all agencies involved with trails, not just the Corps.

#### Patrol Units Appropriate to the Need

All rangers in the study were observed using patrol cars or pickup trucks (Sketch 8) While it is possible to park such vehicles and walk, other means of circulation may be used which may be more effective. Scooters and bicycles have been used effectively in urban park situations where close proximity to user populations is needed. Boat patrols also offer good views and access to activity areas (Sketch 9).

Mounted rangers and police officers have again become quite popular because of their good public relations image and usefulness in cross-country patrol.

There may be recreation areas and facilities, such as trails and hiker campsites, which are not suitable for automobile surveillance. Patrolling systems should be flexible to utilize the kinds of alternative transportation means available and appropriate to the use and environment.

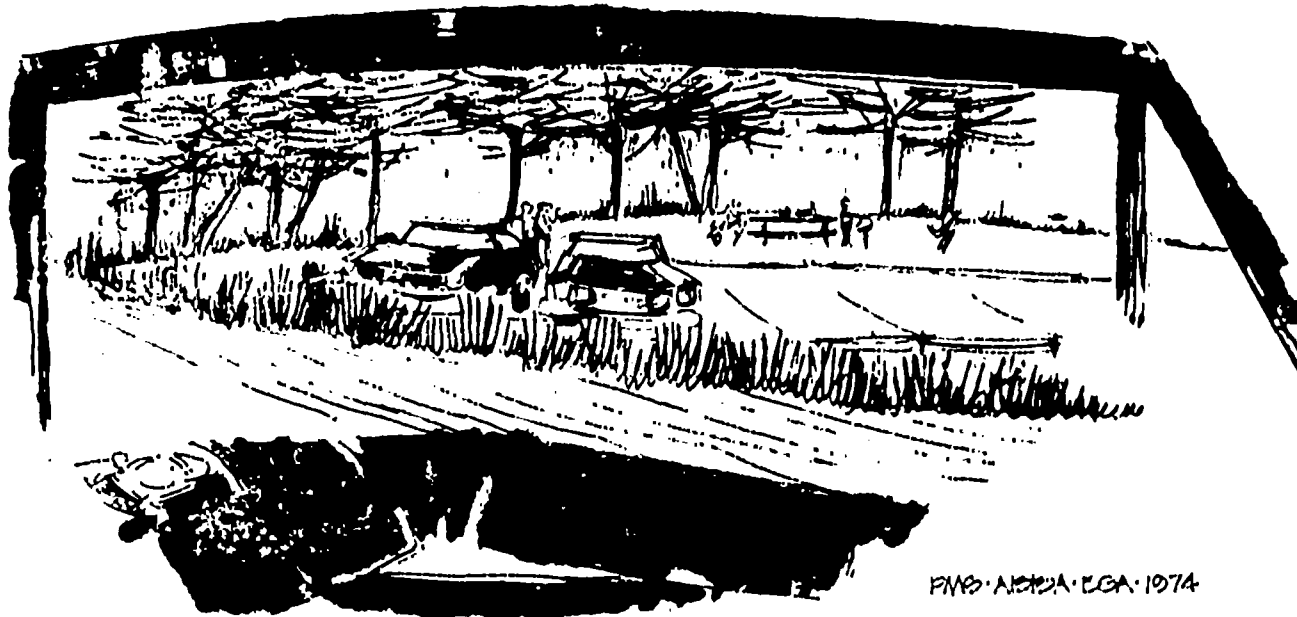
#### H. Esthetics

It is axiomatic in the park and recreation field that good esthetic quality in design of facilities and landscapes is an important ingredient to a satisfying recreation experience. At the same time, however, very little effort has been made to perfect statistical correlations between esthetic parameters and recreation behavior.

Many of the municipal and regional park agency administrators interviewed indicated firm belief that good esthetic design in park areas

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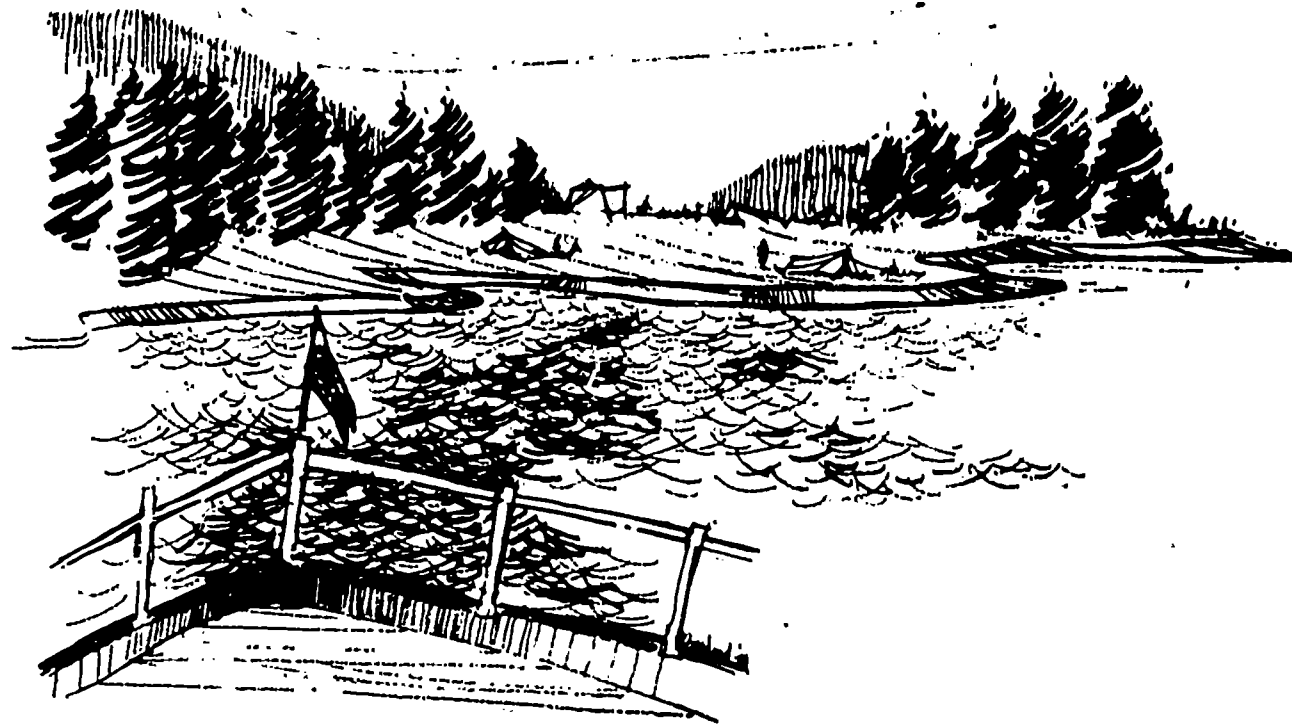
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PATROL VIEW FROM AUTOMOBILE

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PATROL VIEW FROM WATERCRAFT

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and facilities and clean maintenance did much to deter vandalism and littering. Corps park managers, on the other hand, tended to have less strong feelings about the role of esthetics in the design of their recreation areas.

While there is a regulation on esthetics within the Corps Engineering Regulations, it appears that there is still progress to be made in implementing esthetic policy and practice.

#### I. Environmental Protection

There are certain resource management practices that need the additional support of law enforcement for their implementation, where adequate protection is not now provided under Title 36 regulations, or spelled out in ER 1165-2-400. These pertain to usually unique situations where environmental conditions become temporarily sensitive or in jeopardy, or where there are certain types of environmental management standards that visitors appropriately should be obliged to reflect in their use or resources. The continuity of the management efforts directed at these areas often needs protection equal to, and the character of, regulations governing visitor use of the recreation area.

Some of the significant examples of environmental protection regulations are described in the following sections.

##### Restricting the Use of Trails and Other Areas When Wet

When soil conditions are particularly vulnerable to damage by use, such as when wet and soft after a rainfall, clearer authority is needed to restrict use of these areas until they are in suitable condition. It is standard practice to restrict use of golf courses while the ground is wet enough to be damaged by footprints. Similarly, trails often receive the most severe damage by foot, vehicular or horse traffic when wet. Additionally, restrictions should apply to areas where vegetation is being reestablished.

Restricting Access to Hazardous Areas

An example is restricting access to lake shore beaches which are unstable due to erosion. This could also be assisted by controlling motorboat access to lessen impact of waves causing shoreline erosion and limiting intensity of use in areas where carrying capacity is clearly known.

Enforcing Air and Water Quality Standards

This would be especially helpful where visitor activities are in violation, such as in campfires, vehicle exhaust, or discharge of waterborne waste materials.

The study of law enforcement and visitor protection did not concentrate extensively on environmental problems, observations from field surveys and the literature review clearly verify again the need to implement the environmental management and protection measures prescribed in the Corps management report of 1969.<sup>10</sup> It would have been redundant to review the problems already analyzed in this report, which still remain, in large part, unfulfilled. This report should be a basic input into the design and implementation of a Corps of Engineers law enforcement program.

J. Landscaping and Architecture

Ease of surveillance and deterrence to crime and vandalism may be accomplished in planning and design of the recreation area landscape. The judicious and innovative use of plant materials, layout and siting and clearing can provide vistas and spatial relationships that facilitate visitor protection. In some parks, where increasing crime has become a problem, such as James McClatchy Park in Sacramento, the police influenced the clearing of all underbrush and trimming of lower tree branches six to ten feet above the ground. This allows clear views across park areas from patrol routes, but esthetically it is an unsatisfactory solution. Authorities at Central Park in New York City have resisted such pressure

to clear landscaping. Some general landscape practices to provide increased security and visitor protection are included in the following discussion, as well as practices specific to the control of littering, vandalism, improved visibility, and zoning.

#### General Landscape Practices

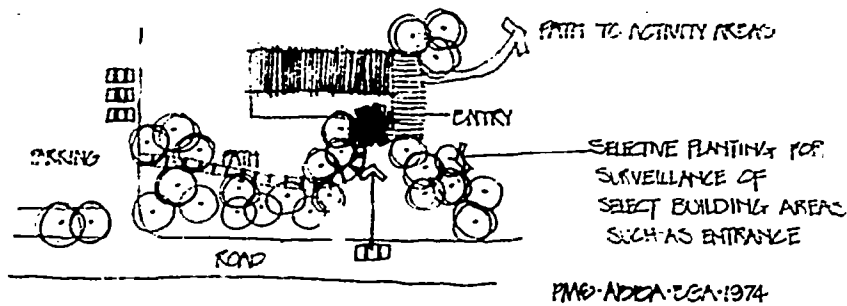
The following landscape practices are indicative of current techniques to improve visitor protection and security in general:

- Using thorny shrubs to provide buffer barriers around windows, equipment and other facilities where intruders are not wanted. Other plant materials require little trimming and insect protection, have good root systems to retard erosion, and require little O&M.
- Designing viewpoints and vistas to render an effect of one-way perspectives.
- Placing shrubs or trees to provide screens for privacy, shade, wind protection, or direct movement, and still enable security surveillance (Sketch 10).
- Thinning vegetation along walkways or trails so that other people may be seen, while landscape presence and texture is experienced.
- Designing the layout of an area to facilitate convenient maintenance practices, such as litter cleanup.
- Orienting doors and windows and the siting of buildings and other structures toward open access and views.

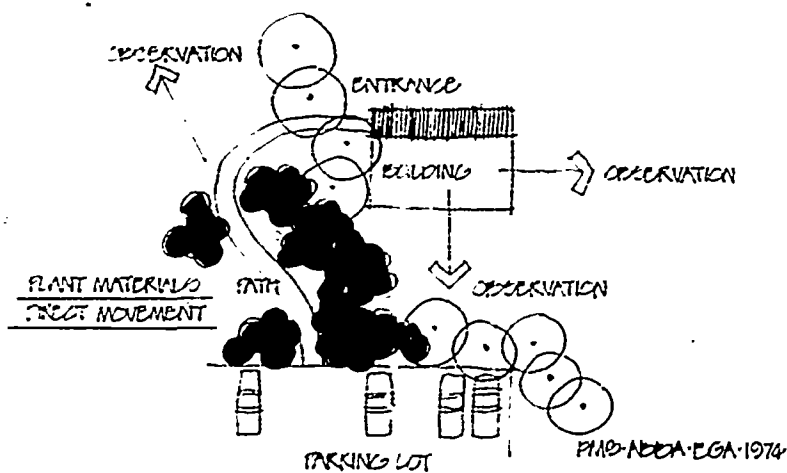
#### Controlling Litter

There are several effective landscape architectural approaches that can be used to control littering. The measures below reflect a few:

- Maintaining clean appearance. People appear more reluctant to disregard litter in a clean area where it will be conspicuous. Once litter starts, such as from overflowing trash receptacles, it tends to accumulate more rapidly.
- Picking up litter during use activity appears to be an educational deterrent.



SELECTIVE VIEW OF ENTRANCE

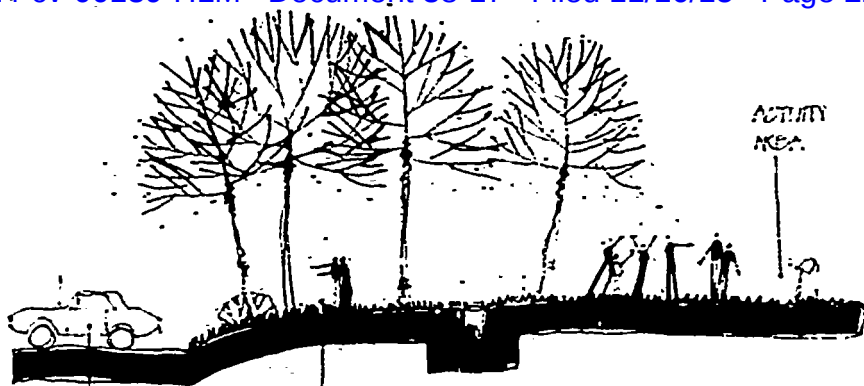


- Placing more trash cans convenient to place of use rather than place of convenient pickup. Carrying food into a picnic area or along a trail is a part of the expectation of the occasion. Carrying trash back out, even with a feeling of environmental consciousness, is a chore (Sketch 11).
- Designing roadside areas to enable use of modern litter clean-up equipment, such as large vacuum systems, and the use of ORV systems to collect trash materials from interior use locations.
- Exploring areas and equipment that would permit on-site disposal or temporary storage of waste material, such as compactors, incinerators, and recycling systems.
- Providing larger capacity trash collection facilities at roadsides for automobile use. This may require modification of some of the "dumpster" systems to make them more attractive and accessible from car windows. For example, have a youth group, at the beginning of summer, paint the dumpsters with creative designs. Trash can capacities at automobile discharge points are invariably inadequate.
- Developing positive reinforcement programs to promote litter prevention and cleanup.

#### Detering Vandalism

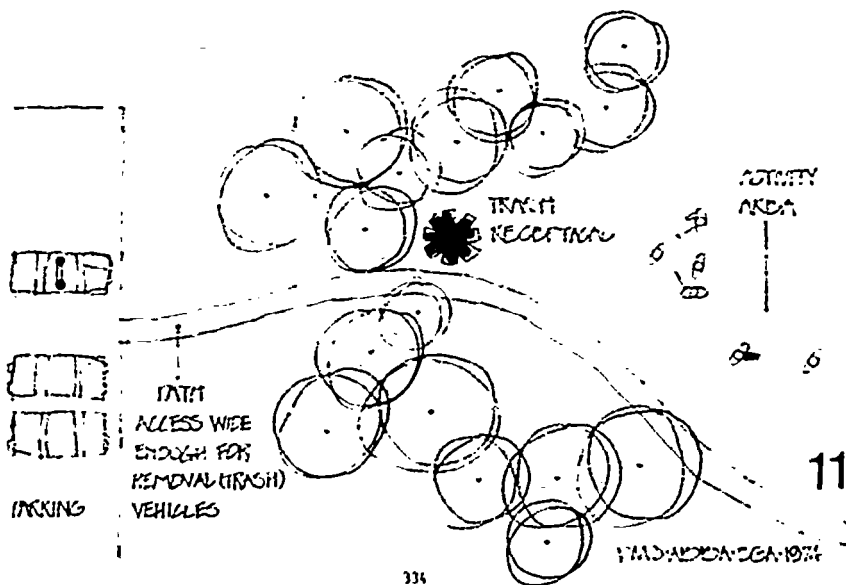
The following landscape architectural practices will assist the Corps in deterring possible acts of vandalism at the lakes:

- Replacing vandalized facilities promptly. Well maintained facilities can deter vandalism, while particularly damaged facilities may encourage further destruction.
- Designing and constructing facilities that are resistant to vandalism or are inexpensive to replace. "Vandal-proofing" is already practiced in many instances by Corps design, construction, and maintenance procedures, such as using lucite windows, automatic shower turn-off faucets, and concrete picnic tables. One of the difficult problems is deciding whether it is more cost effective to replace damaged facilities with more damage resistant materials or to simply tolerate replacing with regular or cheaper materials.
- Turning shower facilities over to concessionaires to manage and maintain as a revenue supporting service.
- Returning to single toilet restrooms. Use more portable facilities that are taken away and stored when not needed during periods of low use. Providing simple water vault pit toilets to handle interim periods of low use.



TRASH RECEPTACLES PLACED  
IN GROUND WITH FOOT PEDAL  
TO OPEN LID

CONVENIENT LOCATION OF TRASH CAN RECEPTACLES  
(CONVENIENT TO ACTIVITY AREA RATHER THAN CONVENIENT TO REMOVAL PICKUP  
POINT)



- Placing parking lots in full view. As previously described, many incidents of larceny are associated with breaking into parked cars. Providing views to day use areas so that visitors may situate their activity at a point where they can observe their parked automobile may reduce this activity. Lighting parking areas at night would also be effective.

#### Improving Visibility

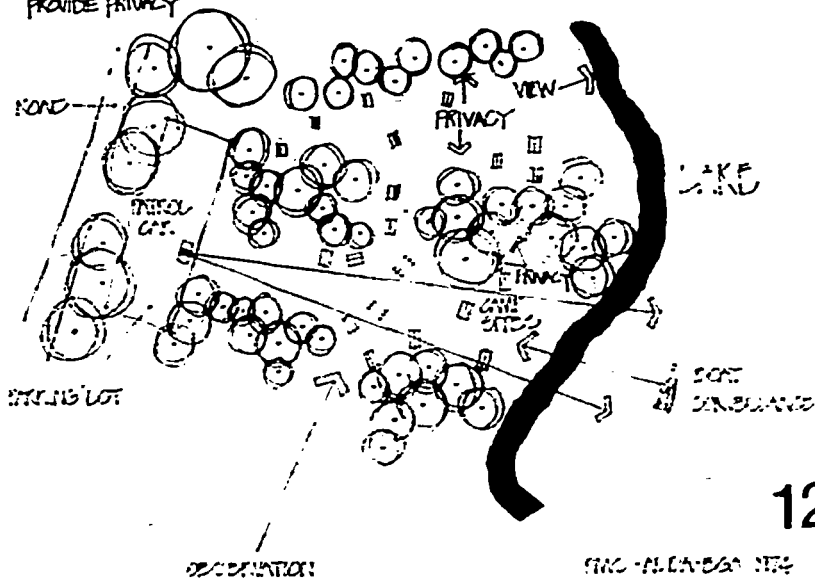
Improving visibility is an excellent landscaping measure which will assist law enforcement and improve visitor protection. Some of the practices are as follows:

- Designing view perspectives to provide visibility while at the same time keeping landscape continuity, functionality and privacy where desired (Sketches 12 and 13).
- Lighting to extend visibility into the night. Intensity, shades, and focuses of lighting may lessen the negative environmental impact of night lighting, such as typically felt in campgrounds (Sketch 14).
- Lights on security patrol vehicles and flashlights should have a distinguishing characteristic by which visitors can identify patrol personnel.
- Improving the application of landscape architectural practices to open up views of use areas and lake vistas would provide better surveillance, greater visitor appreciation, and deterrence to visitors cutting trees and vegetation on their own. The visitors desire to view the lake from picnic areas and campgrounds and other activity areas should be anticipated. Many such areas were observed where overviews of the lake were obliterated by vegetation. Contrary to the commonly expressed notion of environmental protection, selective trimming can enhance the quality of the environment from a human perspective.

#### Zoning

Zoning is a landscape and design technique which has not been used fully and could prove to be very effective. Zoning is a tool for both recreation management and law enforcement and visitor protection which may be applied to control the use of space and time. Consideration should be given to some of the following practices:

SELECTIVE CLEARING TO ENHANCE VIEW  
OF LAKE - IMPROVES SURVEILLANCE AND  
PROVIDE PRIVACY



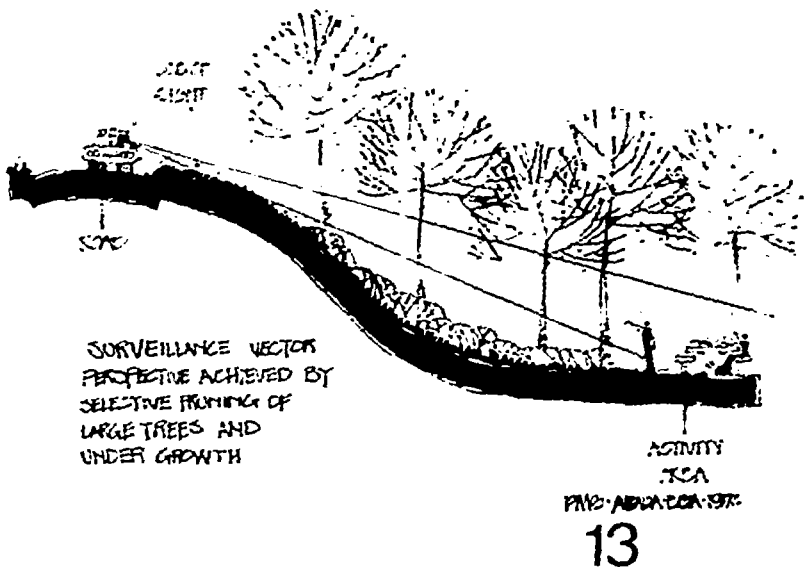
IMPROVED VIEW PERSPECTIVE

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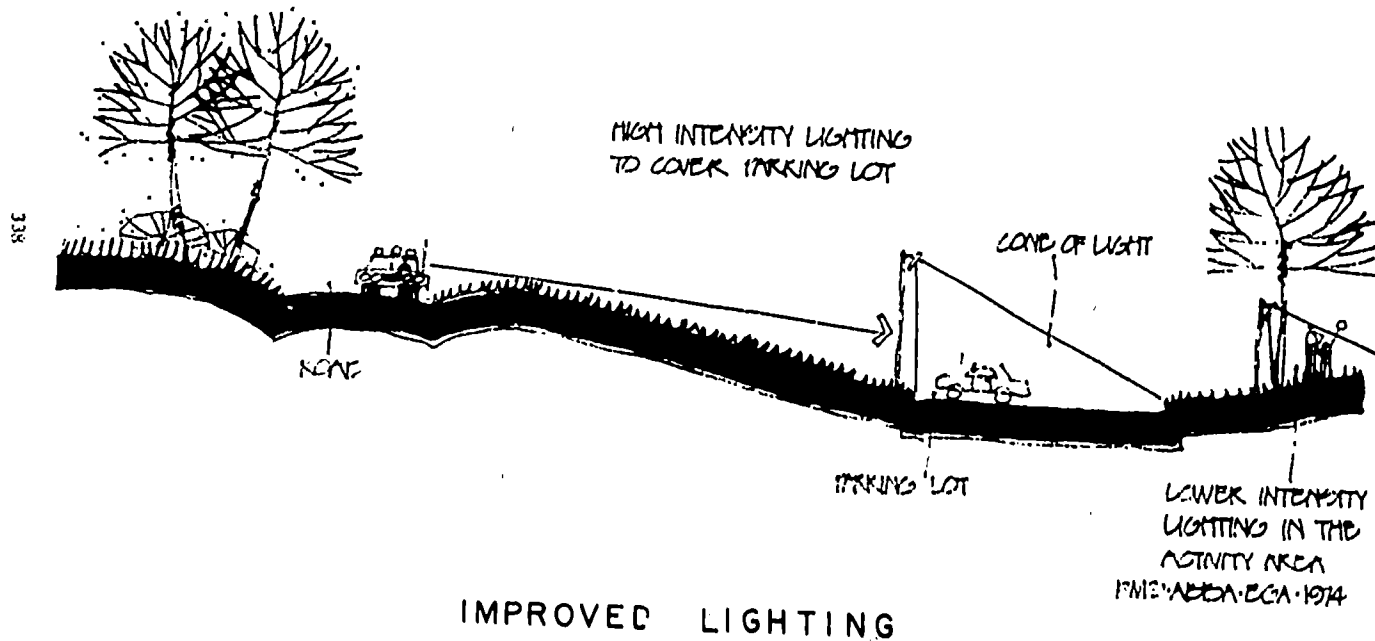
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IMPROVED VIEW PERSPECTIVE



- Conflicting or incompatible uses may be either segregated into different areas, or alternated or scheduled for use at different time intervals.
- Barriers, either physical or implied, could be used to restrict access, delineate areas, or channel activity movements. It was found in one instance, for example, that an undesirable motorcycle gang was curtailed when a barricade was used to block access 100 yards or so from the campground. The motorcyclists apparently did not like the inconvenience of walking to the campsite nor did they like being separated from their motorcycles. Other kinds of fencing or landscape channels may delineate activity spaces that promote social cohesiveness and self security.
- Time zoning could be managed by imposition of curfews, turning off lights, posting use hours, and establishing reservation systems.
- Zoning controls could also be used to manage densities and distribution of users based on capacity of facilities and environment.
- Use permits are a kind of zoning for special events involving large number of people or particular use of resources (such as boat races). Permits could be approved allowing uses within area capacity, while terms and conditions of use must be specified. The permittee may be required to provide (or reimburse) additional traffic control and security for the event, as well as, portable sanitation and water supply facilities. Special events may also be scheduled at times and locations compatible with regular recreation area use.

Law enforcement planners use such techniques as dispersal, curfews, and access control to maintain peace and order. Such recreation and law enforcement planning factors should be coordinated to work together so that the pattern of recreation activity naturally tends to flow in an orderly manner without appearing overly controlled or structured. The key to effective application of time and space zoning controls is to include authority of enforcement under the ranger's visitor protection powers.

K. Improve Law Enforcement and Visitor Protection Practices and Technology

Law enforcement and visitor protection is not different from any other field from the standpoint of lagging in application of state of

the art practices and technologies. There are many technologies for improving visitor protection which would facilitate the management of a recreation area. Remote black light surveillance systems could relieve the visual pollution problem of illumination at night. In some situations, light at night is an annoyance, such as a lighted parking lot near a campground. There are also sophisticated sound sensitive alarm systems and wireless emergency call boxes that could be further developed for use in recreation area circumstances.

Exploratory R&D is needed to determine the costs at which such technologies would be practical and feasible, and then assess the cost of R&D to perfect the systems to the point of feasibility.

In this light, the expected cost of R&D may be weighed against the value given to the advantage or benefit of having such systems operational. To simply say at this time such systems are too expensive for application is a short-sighted view. The key question is what is the R&D cost to make the technology feasible analyzed against the value to be gained from having it.

#### L. Summary

Some preliminary or initial implications of park practice for law enforcement were formulated in this chapter as a result of study observations. These implications were drawn to the extent possible within the scope of this study for two reasons. The first and obvious reason was to reveal or highlight those practices and guidelines that are understood now and within the state of the art to apply immediately. The second reason was to demonstrate the kind of match-making or new marriage that must occur between the recreation and park design profession and the law enforcement profession. When the law enforcement specialist coordinates with the recreation area design team, a new sphere of communication and reference will need to be established. This chapter has attempted to kindle such a relationship to the end that the Corps of Engineers can provide a better environment and opportunity for recreation experience at its lakes which is fulfilling, safe, and meaningful to the quality of life of all Americans.

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APPENDIX A

AGENCIES VISITED BY PRC/PMS PROJECT TEAM

U.S. Army Corps of Engineers Offices

Missouri River Division  
New England Division  
South Atlantic Division  
North Pacific Division  
Lower Mississippi Division  
South Pacific Division

Mobile District  
Fort Worth District  
Nashville District  
Portland District  
New Orleans District  
Vicksburg District  
Pittsburgh District  
Sacramento District  
Rock Island District  
Kansas City District  
Omaha District  
Huntington District

U.S. Army Corps of Engineers Lakes

Lake Sidney Lanier  
Oahe Dam  
Hop Look Reservoir  
Grapevine Lake  
J. Percy Priest Reservoir  
Green Peter Lake  
Lake Wright Patman  
Lake of the Pines  
DeGray Lake  
Shenango Lake Reservoir  
Isabella Reservoir  
Lake Red Rock  
Pomme de Terre Lake  
Perry Reservoir  
Milford Lake  
John Kerr Reservoir  
Philpott Lake  
Grayson Lake

Law Enforcement Agencies

State of Georgia

Georgia Bureau of Investigation  
Georgia Highway Patrol  
Hall County Sheriffs Department  
Gwinnet County Police Department

State of Connecticut

Connecticut State Police  
Middlebury Police Department  
Waterbury Police Department  
Naugatuck Police Department

State of Texas

Texas Rangers  
Texas Highway Patrol  
Grapevine Police Department  
Denton County Sheriffs Department  
Tarrant County Sheriffs Department  
Bowie County Sheriffs Department  
Cass County Sheriffs Department  
Marion County Sheriffs Department  
Texas Alcohol Beverage Control  
Texarkana District Constable  
Federal Bureau of Investigation, Texarkana  
Department of Public Safety

State of Oregon

Oregon State Police  
Linn County Sheriffs Department

State of Tennessee

Nashville Police Department  
Rutherford County Sheriffs Department

State of Arkansas

Arkansas State Police  
Clark County Sheriffs Department  
Hot Springs County Sheriffs Department



Law Enforcement Agencies (continued)

State of Pennsylvania

Pennsylvania State Police  
Clark Police Department  
Pymatuning Police Department  
Hickory Police Department  
Sharpsville Police Department  
Mercer County Sheriffs Department  
Trumbull County Sheriffs Department

State of California

California Highway Patrol  
San Francisco Police Department  
Sacramento County Sheriffs Department  
Kern County Sheriffs Department  
Los Angeles County Sheriffs Department

State of Iowa

Iowa Highway Patrol  
Marion County Sheriffs Department

State of South Dakota

Stanley County Sheriffs Department  
Hughes County Sheriffs Department

State of Missouri

Polk County Sheriffs Department  
Hickory County Sheriffs Department

State of Kansas

Jefferson County Sheriffs Department

Parks and Recreation Agencies

Federal Agencies

National Park Service  
Administrative Offices, Washington, D. C.  
San Francisco District Office  
Yosemite National Park

U.S. Forest Service  
Administrative Offices, Washington, D. C.  
Portland District Office  
Sequoia National Park  
Detroit Lake, Oregon

Tennessee Valley Authority

Bureau of Outdoor Recreation

Bureau of Land Management

U.S. Coast Guard

National Agencies

National Recreation and Park Association

State of Oklahoma

Oklahoma Tourism and Recreation Department  
Little River State Park  
Arrowhead State Park  
Fountainhead State Park  
Oklahoma Recreation Department

State of Tennessee

Metro Nashville-Davidson County Parks  
Tennessee Wildlife Resources Commission

State of Georgia

Game and Fish Division  
Department of Natural Resources

State of Oregon

Oregon State Marine Board

Parks and Recreation Agencies (continued)

State of Texas

Texas Parks and Wildlife  
Houston Municipal Parks

State of Arkansas

Arkansas Department of Fish and Game  
DeGray State Park

State of California

California Department of Parks and Recreation  
San Francisco Recreation and Parks Department  
Sacramento County Department of Parks and Recreation  
Kern County Department of Parks and Recreation  
American River Parkway  
East Bay Regional Parks and Recreation Department

State of Iowa

Iowa Conservation Commission

State of Missouri

Missouri State Parks

State of Virginia

Fairfax County  
Fairfax Regional Park Authority

Clerks of Federal, State, and Local Courts

Clerk of Federal Court, Gainesville, Georgia  
Clerk of State and Superior Court, Gainesville, Georgia  
Clerk of Federal Court, Dallas, Texas  
Clerk of Federal Court, Pittsburgh, Pennsylvania

County Auditors

Cass County Texas Auditors Office  
Bowie County Texas Auditors Office  
Hot Springs County Arkansas Auditors Office  
Clark County Arkansas Auditors Office

U.S. Magistrates, State, County and Municipal  
Judges, and Justices of the Peace

U.S. Magistrate, Gainesville, Georgia  
U.S. Magistrate, Dallas, Texas  
U.S. Magistrate, Nashville, Tennessee  
U.S. Magistrate, Hot Springs, Arkansas  
Arkadelphia Municipal Court Judge  
Precinct 1, Texarkana Justice of the Peace  
Bowie County Judge, Texarkana  
Texarkana District Court Judge  
U.S. Magistrate, Bakersfield, California  
U.S. Magistrate, Southern Iowa  
U.S. Magistrate, Eugene, Oregon

U.S. Attorneys

Assistant U S. Attorney, Nashville Tennessee

APPENDIX B

VISITOR PROTECTION  
SURVEY  
U.S. ARMY CORPS OF ENGINEERS

Name of Recreation Project (Lake) \_\_\_\_\_

Name of person completing questionnaire \_\_\_\_\_

Title \_\_\_\_\_

Number of years with agency \_\_\_\_\_

Address of lake \_\_\_\_\_

Telephone number \_\_\_\_\_

District Office \_\_\_\_\_

I. Environmental/Demographic Characteristics

A. Size of Lake

1. Land Area: \_\_\_\_\_ Acres
2. Water Area: \_\_\_\_\_ Acres

B. Miles of Shoreline \_\_\_\_\_

C. List the jurisdictions by name leasing or owning property within the Federal boundary on the lake.

1. State(s) \_\_\_\_\_
2. Counties \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Cities/Towns \_\_\_\_\_
4. Other (specify) \_\_\_\_\_
5. Total number of direct concessionaire leases \_\_\_\_\_
6. Total number of third party concessionaire leases \_\_\_\_\_

- D. Please complete the following table giving total miles on the lake within the Federal boundary maintained by the respective agency.

|        | Trails | Paved Roads |            | Unpaved Roads |
|--------|--------|-------------|------------|---------------|
|        |        | Two-Lane    | Multi-Lane |               |
| Corps  |        |             |            |               |
| State  |        |             |            |               |
| County |        |             |            |               |
| City   |        |             |            |               |
| Other  |        |             |            |               |
| Total  |        |             |            |               |

List the number of developed areas at the lake controlled by the agencies below. Also list the total number of spaces available within the area, such as tent spaces, trailer spaces, picnic tables, etc.

|                 | Overnight<br>Camping<br>Areas | Total<br>Tent<br>Spaces | Total<br>Trailer<br>Spaces | Picnic<br>Areas | Total<br>Picnic<br>Tables | Lodge<br>or<br>Motels | Total<br>Rooms |
|-----------------|-------------------------------|-------------------------|----------------------------|-----------------|---------------------------|-----------------------|----------------|
| Corps           |                               |                         |                            |                 |                           |                       |                |
| State           |                               |                         |                            |                 |                           |                       |                |
| County          |                               |                         |                            |                 |                           |                       |                |
| City            |                               |                         |                            |                 |                           |                       |                |
| Other (specify) |                               |                         |                            |                 |                           |                       |                |

Include a brochure or print-out detailing the above Table E if available.

- F. Please list the total recreation days at the lake in the last calendar year (use best estimate).

1. Summer (mid-June, Jul, Aug, mid-Sep) \_\_\_\_\_
2. Fall (mid-Sep, Oct, Nov, mid-Dec) \_\_\_\_\_
3. Winter (mid-Dec, Jan, Feb, mid-Mar) \_\_\_\_\_

4. Spring (mid-March, Apr, May, mid-Jun) \_\_\_\_\_
  5. Weekdays \_\_\_\_\_
  6. Weekends \_\_\_\_\_
  7. Day Use \_\_\_\_\_
  8. Overnight Camping \_\_\_\_\_
- G. Briefly explain the method you use to count attendance \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- H. What is the predominant character of the lake: (Circle one)
1. Urban (within 30 miles of a large city)
  2. Urban (developed areas with respect to housing units, motels, etc. located on fringe of lake)
  3. Rural
  4. Other: Please specify \_\_\_\_\_
- I. What are the hours of operation of the day use facilities at the lake?
1. Summer \_\_\_\_\_
  2. Winter \_\_\_\_\_
- J. What is the cost (fee) to the user for overnight camping at Corps areas? \$ \_\_\_\_\_
- K. What was the total amount of money collected at the lake in user fees during the past calendar year? \$ \_\_\_\_\_
- L. At how many Corps areas are users fees collected? \_\_\_\_\_
- M. What is the method(s) of collection of user fees? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- N. How many Ranger sub-stations are located around the lake?  
 \_\_\_\_\_
- O. Are these sub-stations manned with rangers only during the summer?
1. Yes
  2. No
  3. When else \_\_\_\_\_
  4. How many Rangers \_\_\_\_\_

P. Number of structures surrounding the lake within the Federal boundary.

1. Single dwelling houses \_\_\_\_\_
2. Motels/hotels \_\_\_\_\_
3. Tourist Cottages (number of individual cottages) \_\_\_\_\_
4. Grocery stores \_\_\_\_\_
5. Gas stations \_\_\_\_\_
6. Stores selling liquor \_\_\_\_\_
7. Concession stands \_\_\_\_\_
8. Other (specify) \_\_\_\_\_

II. Existing Law Enforcement and Visitor Protection Problems at the Lake

A. List the major visitor protection problems at this lake in priority order; (e.g., robbery, vandalism, traffic, littering, erosion, etc.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

B. Estimate what percentage of these problems you think are caused by:

- In-state visitors picnicking (day use) \_\_\_\_\_
- In-state visitors campin, overnight \_\_\_\_\_
- Local residents \_\_\_\_\_
- Out-of-state visitors campin \_\_\_\_\_
- Other (specify) \_\_\_\_\_

TOTAL

100



- C. In your opinion to what extent would the following types of security measures alleviate the major law enforcement problems you identified in question 11. A.? Circle one letter for each measure listed.

A -- no effect  
B -- some effect  
C -- major effect

|                                        | <u>No<br/>Effect</u> | <u>Some<br/>Effect</u> | <u>Major<br/>Effect</u> |
|----------------------------------------|----------------------|------------------------|-------------------------|
| 1. Better lighting at night            | A                    | B                      | C                       |
| 2. Emergency phones at developed areas | A                    | B                      | C                       |
| 3. Security Patrol (surveillance)      | A                    | B                      | C                       |
| 4. Fence Control                       | A                    | B                      | C                       |
| 5. Curfew Enforcement                  | A                    | B                      | C                       |
| 6. Reducing Shrubbery                  | A                    | B                      | C                       |
| 7. Improved Night Visibility           | A                    | B                      | C                       |
| 8. Other (specify) _____               | A                    | B                      | C                       |

- D. In your opinion, to what extent is visitor protection considered in the following: Circle the appropriate letter.

A -- no consideration  
B -- some consideration  
C -- major consideration

|                                     | <u>No<br/>Consideration</u> | <u>Some<br/>Consideration</u> | <u>Major<br/>Consideration</u> |
|-------------------------------------|-----------------------------|-------------------------------|--------------------------------|
| 1. Planning layout of area          | A                           | B                             | C                              |
| 2. Selection of types of facilities | A                           | B                             | C                              |
| 3. Design of facilities             | A                           | B                             | C                              |
| 4. Location of entrance roads       | A                           | B                             | C                              |
| 5. Location of circulation roads    | A                           | B                             | C                              |
| 6. Lighting                         | A                           | B                             | C                              |
| 7. Fencing                          | A                           | B                             | C                              |
| 8. Landscaping                      | A                           | B                             | C                              |

- E. In your experience, how does inadequate visitor protection and law enforcement appear to affect visitors: Circle one letter for each cause listed.

A -- Yes  
B -- Undecided  
C -- No

|                                    | <u>Yes</u> | <u>Undecided</u> | <u>No</u> |
|------------------------------------|------------|------------------|-----------|
| 1. May go elsewhere                | A          | B                | C         |
| 2. Less satisfaction and enjoyment | A          | B                | C         |
| 3. Causes fear and anxiety         | A          | B                | C         |
| 4. Unwillingness to pay use fee    | A          | B                | C         |
| 5. Attracts troublemakers          | A          | B                | C         |
| 6. Other (specify) _____           | A          | B                | C         |

- F. In your opinion, would improved visitor protection have the following effects on visitation to recreation facilities: Circle one letter for each effect listed.

A -- Yes  
B -- Undecided  
C -- No

|                                                      | <u>Yes</u> | <u>Undecided</u> | <u>No</u> |
|------------------------------------------------------|------------|------------------|-----------|
| 1. More people in concentrated areas                 | A          | B                | C         |
| 2. More dispersion of people throughout project area | A          | B                | C         |
| 3. Increased day use                                 | A          | B                | C         |
| 4. Increased overnight use                           | A          | B                | C         |
| 5. Willingness to pay use fees                       | A          | B                | C         |
| 6. Other (specify) _____                             | A          | B                | C         |

- G. To what extent are the following types of traffic related issues a problem at this lake? List 1, 2, 3, etc., according to priority of occurrence.

( ) Traffic congestion

- ☐ ( ) Parking
- ☐ ( ) Traffic crashes
- ☐ ( ) Vehicle breakdown
- ☐ ( ) Moving traffic violation
- ☐ ( ) Off road vehicles
- ☐ ( ) Other, specify \_\_\_\_\_
- ☐ ( ) No traffic problems

H. What time of day do your primary law enforcement problems occur? List 1, 2, 3, etc., according to priority of occurrence.

| <u>Summer months (mid-Jun to mid-Sep)</u> | <u>Rest of the Year (mid-Sep to mid-Jun)</u> |
|-------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> ( ) 0600 - 1159  | <input type="checkbox"/> ( ) 0600 - 1159     |
| <input type="checkbox"/> ( ) 1200 - 1559  | <input type="checkbox"/> ( ) 1200 - 1559     |
| <input type="checkbox"/> ( ) 1600 - 1959  | <input type="checkbox"/> ( ) 1600 - 1959     |
| <input type="checkbox"/> ( ) 2000 - 2359  | <input type="checkbox"/> ( ) 2000 - 2359     |
| <input type="checkbox"/> ( ) 0000 - 0259  | <input type="checkbox"/> ( ) 0000 - 0259     |
| <input type="checkbox"/> ( ) 0300 - 0559  | <input type="checkbox"/> ( ) 0300 - 0559     |

I. On what day or days of the week do the primary law enforcement problems occur? List 1, 2, 3, etc.

- |                                        |                                       |
|----------------------------------------|---------------------------------------|
| <input type="checkbox"/> ( ) Sunday    | <input type="checkbox"/> ( ) Thursday |
| <input type="checkbox"/> ( ) Monday    | <input type="checkbox"/> ( ) Friday   |
| <input type="checkbox"/> ( ) Tuesday   | <input type="checkbox"/> ( ) Saturday |
| <input type="checkbox"/> ( ) Wednesday |                                       |

J. Are the law enforcement problems more severe on holidays than on normal days?

1. Yes
2. No

- K. (Circle the number which best describes the present situation)  
The citation power and Ranger authority is sufficient to maintain order at the lakes?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- L. There is a need for more authority such as broad power of arrest?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- M. There is a need for more authority and ranger protection such as the authority to carry firearms?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- N. When you reprimand or give verbal warnings to recreation visitors for the purpose of correcting their behavior, which of the following statements best describes their usual reaction? Are they... (circle the appropriate answer)

1. Very cooperative
2. Slightly cooperative
3. Uncooperative
4. Very uncooperative

### III. Law Enforcement/Visitor Protection Delivery Systems

- A. List at least six types of services provided by Corps personnel that you consider to be related to visitor protection at the lake.

| Type of Service |
|-----------------|
| 1. _____        |
| 2. _____        |
| 3. _____        |
| 4. _____        |
| 5. _____        |
| 6. _____        |

B. List the names and addresses of all law enforcement agencies that provided any form of service at the lake during the past calendar year.

|          |          |
|----------|----------|
| 1. _____ | 2. _____ |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |
| 3. _____ | 4. _____ |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |
| 5. _____ | 6. _____ |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |
| _____    | _____    |

C. List the ranger personnel assigned to this lake (use other side if necessary)

| Title/GS Level | # Full-Time |        | # Part-Time |        | Average Days per Year for Part-Time |
|----------------|-------------|--------|-------------|--------|-------------------------------------|
|                | Male        | Female | Male        | Female |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |

Are the part-time all summer help? ☐ Yes  
☐ No

D. How many of the above listed positions are authorized to issue citations? \_\_\_\_\_

E. Estimate the percentage of the average ranger's day devoted to the visitor protection services you described.

1. Summer months  
(May - September)

☐ 0-10%

☐ 11-20%

☐ 21-40%

☐ 41-60%

☐ 61-79%

☐ Over 80%

2. Rest of year  
(October - April)

☐ 0-10%

☐ 11-20%

☐ 21-40%

☐ 41-60%

☐ 61-79%

☐ Over 80%

F. Do the rangers at this lake maintain a set schedule of security patrol? ☐ Yes  
☐ No

G. If yes, describe how this security patrol is carried out.

---



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H. List the working schedule for rangers at the lake.

1. During the summer months ( May - September )

| Shift<br>(What Hrs.) | Total No. of Full-<br>Time Rangers | Total No. of Part-<br>Time Rangers |
|----------------------|------------------------------------|------------------------------------|
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |

2. During the winter months

| Shift<br>(What Hrs.) | Total No. of Full-<br>Time Rangers | Total No. of Part-<br>Time Rangers |
|----------------------|------------------------------------|------------------------------------|
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |

- I. How many citations were issued by rangers at this lake in calendar year 1973? \_\_\_\_\_
- J. List the five most predominant reasons for the issuance of citations by rangers in calendar year 1973 together with either the actual count or your best estimate of the number of each type:

| <u>Citation Reasons</u> | <u>Number</u> |
|-------------------------|---------------|
| 1. _____                | _____         |
| 2. _____                | _____         |
| 3. _____                | _____         |
| 4. _____                | _____         |
| 5. _____                | _____         |

- K. How many written warnings were issued by rangers in calendar year 1973? \_\_\_\_\_

- L. Are records maintained of both citations and warnings at the lake office?

- |              |                   |
|--------------|-------------------|
| 1. Citations | 2. Written Notice |
| ( ) Yes      | ( ) Yes           |
| ( ) No       | ( ) No            |

- M. At what locations around the lake were the majority of citations and warnings issued? List in order of occurrence 1, 2, 3, etc.

- ( ) Overnight camp sites
- ( ) Day use
- ( ) Water surface

4. ☐ Undeveloped areas
  5. ☐ Other, specify \_\_\_\_\_
- N. Are the law enforcement problems mostly due to (check one):
1. ☐ Adults
  2. ☐ Juveniles
- O. Have any ranger personnel been physically assaulted by recreation users in calendar year 1973?
1. ☐ Yes
  2. ☐ No
- Any medical treatment required for Corp staff assaulted?
- ☐ Yes. How many cases? \_\_\_\_\_
- ☐ No
- P. List the total number of crimes reported to ranger personnel in calendar year 1973 which occurred in the Federal Boundary.
1. ☐ Murder # \_\_\_\_\_
  2. ☐ Rape # \_\_\_\_\_
  3. ☐ Robbery # \_\_\_\_\_
  4. ☐ Auto Theft # \_\_\_\_\_
  5. ☐ Aggravated Assault # \_\_\_\_\_
  6. ☐ Theft (major over \$50 in valuables) # \_\_\_\_\_
  7. ☐ Theft (mino. under \$50 in valuables) " \_\_\_\_\_
- Q. Is there any preventive patrol or surveillance provided on a regular schedule in Corps developed areas of the lake by:
- |                             |                              |                             |
|-----------------------------|------------------------------|-----------------------------|
| 1. State Police             | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. County Sheriff or Police | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Corps Rangers            | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. City Police              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Private Police           | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Other, specify _____     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



R. What agency(s) does the Corps Rangers call upon for emergency assistance (i.e., lost persons, civil disorder, drowning, traffic accidents, etc.). List by name.

1. State Police ☐ Yes ☐ No
2. County Sheriff or Police ☐ Yes ☐ No
3. Other Federal Agency ☐ Yes ☐ No
4. City Police ☐ Yes ☐ No
5. Private Police ☐ Yes ☐ No
6. Other, specify \_\_\_\_\_ ☐ Yes ☐ No

S. What agency provides surveillance and law enforcement on the water areas?

1. ☐ Corps Rangers \_\_\_\_\_
2. ☐ State Authority \_\_\_\_\_
3. ☐ County or City \_\_\_\_\_
4. ☐ , Other Federal \_\_\_\_\_
5. ☐ Other, specify \_\_\_\_\_

T. During the summer season does this lake need patrol and surveillance by sworn police officers on a regular interval schedule? Check one of the following:

1. ☐ 24 hours a day every day of the week
2. ☐ less than 24 hours a day, every day of the week
3. ☐ only on weekends
4. ☐ only on holidays
5. ☐ No regular patrol needed as long as access is available for specific or emergency calls.

iv. Equipment Inventory

A. How many of the following are used by the Corps at this lake:

|                                                             | <u>No. Owned<br/>or Leased<br/>by Agency</u> | <u>No. Owned<br/>by Officer<br/>&amp; Used on Job</u> | <u>Total</u> | <u>How Many Are<br/>Equipped With<br/>Police Radios?</u> |
|-------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------|--------------|----------------------------------------------------------|
| 1. Trucks or Jeeps (designed for passengers)                | _____                                        | _____                                                 | _____        | _____                                                    |
| 2. Automobiles or station wagons                            | _____                                        | _____                                                 | _____        | _____                                                    |
| 3. Boats <u>with</u> motors (Inboard or Outboard)           | _____                                        | _____                                                 | _____        | _____                                                    |
| 4. Boats <u>without</u> motors                              | _____                                        | _____                                                 | _____        | _____                                                    |
| 5. 2 - Wheel motorcycles                                    | _____                                        | _____                                                 | _____        | _____                                                    |
| 6. Trucks or vans (designed for cargo)                      | _____                                        | _____                                                 | _____        | _____                                                    |
| 7. Horses (include all horses used at<br>least once a year) | _____                                        | _____                                                 | _____        | _____                                                    |
| 8. Bicycles                                                 | _____                                        | _____                                                 | _____        | _____                                                    |
| 9. Hand-held police radios or walkie-talkies                | _____                                        | _____                                                 | _____        | _____                                                    |
| 10. Aircraft                                                | _____                                        | _____                                                 | _____        | _____                                                    |
| 11. Firearms                                                | _____                                        | _____                                                 | _____        | _____                                                    |
| 12. Flashlights                                             | _____                                        | _____                                                 | _____        | _____                                                    |
| 13. Riot Sticks                                             | _____                                        | _____                                                 | _____        | _____                                                    |
| 14. Other (specify) _____                                   | _____                                        | _____                                                 | _____        | _____                                                    |

B. Are the communication radios on the vehicles on the same frequency channel as the:

1. ( ) State Police
2. ( ) County Police
3. ( ) County Sheriff
4. ( ) City Police
5. ( ) Other (specify) \_\_\_\_\_

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- C. Estimate FY 1973 annual costs, including labor, of replacement and restoration of equipment, furniture, buildings, embankments, etc., at the lake due to crime, vandalism and littering.  
\$ \_\_\_\_\_
- D. Estimate, if possible, costs due to crime and vandalism incurred by private parties (e.g., visitors, merchants, etc.).  
\$ \_\_\_\_\_
- E. Do the costs in C. and D. above appear to be about the same \_\_\_\_\_; less than \_\_\_\_\_; more than \_\_\_\_\_ the previous year (FY 1972)? If a change is indicated, what is your estimate of the amount of change? \_\_\_\_\_

V. Education

- A. How many of the full-time staff are currently enrolled in college or junior college? \_\_\_\_\_
- B. Have any full-time rangers completed a 2-year college degree program? ( ) Yes, Number \_\_\_\_\_  
( ) No
- C. Have any full-time rangers completed a 4-year college degree program? ( ) Yes, Number \_\_\_\_\_  
( ) No
- D. How many of the full-time rangers have working experience in law enforcement (i.e., military police, police officers, deputy sheriffs?) \_\_\_\_\_

VI. Training

- A. How many rangers have received law enforcement training in conjunction with the citation program? \_\_\_\_\_
- B. Who administered the training? \_\_\_\_\_
- C. How long was the session? \_\_\_\_\_
- D. Is there a need for additional law enforcement training in any other areas?  
1. ( ) Yes, (specify) \_\_\_\_\_  
2. ( ) No

VII. Operating Costs

- A. What were the Corps of Engineers authorized "obligations incurred" or expenditures at this lake in Fiscal Year 1973?  
Amount \$ \_\_\_\_\_

- B. Estimate percentage of total Corps lake budget above allocated to the following classes of expenditure and further estimate the amounts devoted to security and protection services (e.g., police patrol, security devices, signs, lighting, fences, etc.).

|                                                         | <u>Percent of Expenditures</u> | <u>Amount Security and Protection</u> |
|---------------------------------------------------------|--------------------------------|---------------------------------------|
| 1. Personnel salaries and fringes                       | _____                          | _____                                 |
| 2. Operating expenses (supplies, utilities, fuel, etc.) | _____                          | _____                                 |
| 3. Contract maintenance services                        | _____                          | _____                                 |
| 4. Other contract services                              | _____                          | _____                                 |
| 5. Construction                                         | _____                          | _____                                 |
| 6. Equipment                                            | _____                          | _____                                 |
| 7. Other                                                | _____                          | _____                                 |
| TOTAL                                                   | _____                          | _____                                 |

Read these instructions to assist you in completing the attached table. Detach the table and place it next to the questions for easy reference.

In filling out the following table you must determine the level of use, security, and security problems of the areas listed in the first column of the table. For example, under the category of level of use, if the picknicking areas are not used to capacity, you would place the Number "1" in the column opposite picknicking directly beneath the category of level of recreation use. The rest of the table should be completed in the same manner.

- I. Level of Recreation Use. Choose the letter which best describes the level of recreation use in each of the areas listed in the first column. Place this Number under the category of level of recreation use directly opposite the area to which you are referring.

1 - Not used to capacity

2 - Used to capacity

3 - Used to overcapacity

II. Level of Security. Choose the Number which best describes the lighting, ~~communications~~, (i.e., call boxes, telephones, etc.), security patrol, etc. in each of the areas listed in the first column. Place this Letter under the category of lighting, ~~communications~~, etc. directly opposite the area to which you are referring.

A. Lighting in each area:

1 - No lighting at night

2 - Some lighting at night

3 - Most are lighted at night

4 - All areas lighted at night

B. ~~Communications~~

1 - Telephones or call boxes are located in each area

2 - Telephones or call boxes are not located in each area

C. Security patrol and surveillance of each area:

1 - No patrol of the area

2 - Some patrol of the area

3 - Area patrolled most of the time

D. Site access and control:

1 - No control of road

2 - Some control

3 - Most site accesses controlled

III. Level of Security Problem. Choose the Number which best describes the level of the security problems in the lake areas and complete according to previous instructions.

| Choose the letter which best describes the level in each category and place it opposite each area below. | I<br>Level of Recreation Use | II Level of Security |                   |              |                 |             |  | III<br>Level of Security Problem | IV<br>Estimated cost to achieve desired level of security |                        | V<br>Contributing Management Problems to Visitor Security Protection |       |             |                |            |                     |        |                    |                             |                 |
|----------------------------------------------------------------------------------------------------------|------------------------------|----------------------|-------------------|--------------|-----------------|-------------|--|----------------------------------|-----------------------------------------------------------|------------------------|----------------------------------------------------------------------|-------|-------------|----------------|------------|---------------------|--------|--------------------|-----------------------------|-----------------|
|                                                                                                          |                              | Guarding             | Control of Access | Surveillance | Security Patrol | Site Access |  |                                  | Initial (Capital) Costs                                   | Annual Operating Costs | Topography                                                           | Trees | Undergrowth | Lake Shoreline | Vegetation | Campsite Facilities | Design | Picnic Area Design | Difficult Facilities Access | Other (Specify) |
| Fencing                                                                                                  |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Camping                                                                                                  |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Swimming                                                                                                 |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Benches                                                                                                  |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Boat launch ramp                                                                                         |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Piers, wharfs                                                                                            |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Floating docks & other structures                                                                        |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Marinas                                                                                                  |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Totals                                                                                                   |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Restaurants                                                                                              |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Nature trails                                                                                            |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| On-site walks                                                                                            |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| On-site walks for access                                                                                 |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Food access                                                                                              |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Vehicle drives                                                                                           |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Overlook                                                                                                 |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Parking areas                                                                                            |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Restrooms                                                                                                |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Showers                                                                                                  |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Undeveloped Areas                                                                                        |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |
| Other, Specify                                                                                           |                              |                      |                   |              |                 |             |  |                                  |                                                           |                        |                                                                      |       |             |                |            |                     |        |                    |                             |                 |

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1 - No problem

2 - Some problem

3 - A major problem

IV. Estimated Cost for the Corps to Achieve Desired Level of Security.  
In your opinion, estimate the initial capital costs and annual operating costs of increasing the visitor security to an adequate level in each area listed. If the security is already adequate, place a zero in the column.

V. Contributing Management Problems Affecting Visitor Security Protection.  
Choose the Number which best describes the level of management problems with topography, trees, undergrowth, etc. in each of the areas listed in the first column. Place this letter under the category of topography, trees, etc. directly opposite the areas to which you are referring.

1 - No problem

2 - Some problem

3 - A major problem

APPENDIX C  
CORPS OF ENGINEERS CLASSES OF LAKES BY ATTENDANCE

I. Class A Lakes - Urban Areas

1. Buford Dam Lake Sidney Lanier
2. Denison Dam Lake Texoma
3. Hartwell Lake
4. Allatoona Lake
5. Table Rock Lake
6. Old Hickory Lock and Dam
7. Eufaula Lake
8. Ferrells Bridge Dam Lake O' the Pines
9. Tenkiller Ferry Lake
10. Fort Gibson Lake
11. Grapevine Lake
12. J. Percy Priest Dam and Reservoir
13. Greers Ferry Lake
14. Beaver Lake
15. Keystone Lake
16. Norfolk Lake
17. Lewisville Dam
18. Carlyle Lake
19. Millwood Lake
20. Benbrook Lake
21. Belton Lake
22. Perry Lake
23. Cheatham Lock and Dam
24. Lavon Lake
25. Milford Lake
26. Coralville Lake
27. Youghiogheny River Lake
28. Waco Lake
29. Arkabutla Lake
30. Fern Ridge Lake
31. Stillhouse Hollow Lake
32. Red Rock Dam and Lake Red Rock
33. Dewey Lake
34. Shenango River Lake
35. Heyburn Lake
36. Sutton Lake
37. Pine Flat Lake
38. Navarro Mills Lake
39. Nolin Lake
40. San Angelo Lake
41. Webbers Falls Lock and Dam (Arkansas River Navigation System)
42. Albeni Falls Dam and Lake Pend Oreille
43. Cottage Grove Lake



Class A Lakes - Rural Areas

1. Clark Hill Lake
2. Barkley L & D Lake Barkley
3. Whitney Lake
4. Center Hill Lake
5. John H. Kerr Dam and Reservoir
6. Gavins Point Dam Lewis and Clark Lake
7. Bull Shoals Lake
8. Jim Woodruff L & D Lake Seminole
9. Walter F. George L & D (Chattahoochee River System)
10. Blakely Mountain Dam Lake Ouchitza
11. Lake Shelbyville
12. Dale Hollow Lake
13. Wright Patman Dam and Lake (Lake Texarkana)
14. Somerville Lake
15. Sam Rayburn Dam and Reservoir
16. Narrows Dam Lake Greason
17. Pomme de Terre Lake
18. Dardanelle L & D (Arkansas River Navigation System)
19. DeGray Lake
20. Osage Dam Lake Osage
21. Stockton Lake
22. Sardis Lake
23. Wappapello Lake
24. Pomona Lake
25. Fort Randall Dam Lake Francis Case
26. Somerville Lake
27. Tuttle Creek Lake
28. Rough River Lake
29. Oologah Lake
30. Rathbun Lake
31. Philpott Lake
32. Lucky Peak Lake
33. Canton Lake
34. Broken Bow Lake
35. Garrison Dam Lake Sakakawea
36. John Day Lock and Dam Lake Umatilla
37. Barren River Lake
38. Bluestone Lake
39. Council Grove Lake
40. Town Bluff Dam B A Steinhagen Lake
41. Isabella Lake
42. Enid Lake
43. Big Bend Lake Lake Sharpe
44. Rend Lake
45. Clearwater Lake
46. W. Kerr Scott Dam and Reservoir
47. Marion Lake
48. Harlan County Lake
49. Leech Lake

Class A Lakes - Rural Areas (continued)

50. Fort Peck Lake
51. Success Lake
52. Robert S. Kerr L & D Reservoir (Arkansas River Navigation System)
53. Bardwell Lake
54. John Redmond Dam and Reservoir
55. Proctor Lake Texas
56. East Lynn Lake
57. Grayson Lake
58. Kanopolis Lake
59. Pine Creek Lake
60. Tionesta Lake
61. Nimrod Lake
62. Hulah Lake
63. Wilson Lake
64. Ozark Lake (Arkansas River Navigation System)
65. Baldhill Dam Lake Ashtabula
66. John W. Flannagan Dam and Reservoir
67. Fishtrap Lake
68. Buckhorn Lake
69. Fort Supply Lake
70. Fall River Lake
71. North Fork of Pound River Lake
72. Blue Mountain Lake
73. Hords Creek Lake
74. New Hogan Lake
75. George W. Andrews L & D (Chattahoochee River System)
76. Black Butte Lake
77. Cordell Hull Dam and Reservoir

(Unclassed Lakes)

1. Wolf Creek Dam Lake Cumberland
2. Black Warrior and Tombigbee Lakes (7 LSD)
3. Grenada Lake
4. Canyon Lake
5. Coyote Valley Dam Lake Mendocino
6. Green River Lake
7. Pat Mayse Lake
8. Lock and Dam #2 (Arkansas River Navigation System)

II. Class B Lakes

1. McNary Lock and Dam Lake Wallula
2. Mississippi River Pool 21
3. Pine River Lake
4. Gull Lake
5. Cape Cod Canal
6. Wister Lake
7. Pokegama Lake
8. Tygart Lake
9. Lake Winnibigoshish
10. Sandy Lake
11. Okatibbee Lake
12. Mississippi River Pool 17
13. Crooked Creek Lake
14. The Dallas Lock and Dam Lake Celilo
15. Mississippi River Pool 12
16. Toronto Lake
17. Mississippi River Pool 14
18. Mississippi River Pool 11
19. Elk City Lake
20. Conchas Lake
21. Loyalhanna Lake
22. Bayou Bodcau Reservoir
23. Dorena Lake
24. Francis E. Walter Dam
25. Hopkinton-Everett Lakes
26. Fall Creek Lake
27. Ohio River Mile 532 thru 981 (12 L & D)
28. East Brimfield Lake
29. Foster Lake
30. Hop Brook Lake
31. Mansfield Hollow Lake
32. Claiborne Lock and Dam (Alabama River)
33. Mississippi River Pool 20
34. Hills Creek Lake
35. Birch Hill Dam
36. Ice Harbor Lock and Dam Lake Sacajawea
37. Lock and Dam #3 (Arkansas River Navigation System)
38. Black Rock Lake
39. Conemaugh River Lake
40. East Branch Clarion River Lake
41. Mill Creek Lake
42. Surry Mountain Lake
43. Green Peter Lake
44. West Hill Dam
45. Lac Qui Parle Lake
46. Harry L. Eaglebright Lake
47. Westville Lake
48. John Martin Reservoir
49. Thomastor Dam
50. Colebrook River Lake

II. Class B Lakes (continued)

51. Franklin Falls Dam
52. Chief Joseph Dam and Lake Rufus Woods
53. Chouteau L & D (Arkansas River Navigation System)
54. Union Village Dam
55. Townshend Lake
56. Littleville Lake
57. North Springfield Lake
58. Blue River Lake
59. Lake Traverse
60. Abiquiu Dam
61. Northfield Brook Lake
62. Mud Mountain Project White River
63. Otter Brook Lake
64. Buffumville Lake
65. Eau Galle River Lake
66. Newt Graham L & D (Arkansas River Navigation System)
67. Hodges Village Dam
68. Mahoning Creek Lake
69. North Hartland Lake
70. Knightville Dam
71. Barre Falls Dam
72. Jemez Canyon Dam
73. Lookout Point Lake
74. Edward MacDowell Dam
75. Conant Brook Dam
76. Blackwater Dam
77. Ball Mountain Lake
78. Hancock Brook Lake
79. Wynoochee Lake
80. Orwell Lake
81. Martis Creek Lake
82. Cottonwood Springs Lake
83. Dworshak Dam and Lake

III. Class C Lakes

1. West Fork Mill Creek Lake
2. Deer Creek Lake
3. Kinzua Dam and Allegheny Reservoir
4. Mosquito Creek Lake
5. Sepulveda Dam
6. Hansen Dam
7. Monroe Lake
8. Whittier Narrows Lake
9. Atwood Lake
10. Berlin Lake

III. Class C Lakes (continued)

11. Delaware Lake
12. Charles Mill Lake
13. Dillon Lake
14. Cherry Creek Lake
15. Great Salt Plains Lake
16. Michael J. Kirwan Dam and Reservoir
17. Pleasant Hill Lake
18. Tom Jenkins Dam
19. Senecaville Lake
20. Mississinewa Lake
21. Mansfield Lake
22. Dexter Lake
23. Capt. Anthony Meldahl Locks and Dam (Ohio River)
24. Addicks Dam
25. Belzville Lake
26. Detroit Lake
27. Brea Dam
28. Tappan Lake
29. Eagles Mill Lake
30. Leesville Lake
31. Piedmont Lake
32. Terminus Dam Lake Kaweah
33. Prado Dam
34. East Sidney Lake
35. Cougar Lake
36. Wallace Lake
37. Curwensville Lake
38. Mohawk Lake
39. Beech City Lake
40. Prompton Lake
41. Home Lake
42. West Thompson Lake
43. Sarinas Lake
44. Racine Locks and Dam (Ohio River)
45. Bowman Haley Lake
46. Bolivar Lake
47. Wills Creek Lake
48. Alamo Lake
49. Cold Brook Lake
50. Almond Lake
51. Tully Lake
52. Mohicanville Lake

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IV. Class D Lakes

1. Okeechobee Waterway (4 Locks and Dams)
2. Mississippi River Pool 19
3. Mississippi River Pool 13
4. Mississippi River Pool 16
5. Mississippi River Pool 26
6. Lake Washington Ship Canal
7. Millers Ferry L & D William Bill Dannelly Reservoir
8. Mississippi River Pool 18
9. St. Marys River
10. Lock and Dam #4 (Arkansas River Navigation System)
11. Mississippi River Pool 15
12. Duluth Ship Canal and Harbor
13. David D. Terry L & D (Arkansas River Navigation System)
14. Mississippi River Pool 6
15. Mississippi River Pool 3
16. Mississippi River Pool 25
17. Mississippi River Pool 4
18. Mississippi River Pool 9
19. Mississippi River Pool 8
20. New Savannah Bluff Lock and Dam
21. Murray L & D (Arkansas River Navigation System)
22. Ohio River Mile 438 thru 532 (1 L&D)
23. Mississippi River Pool 10
24. Lock and Dam #5 (Arkansas River Navigation System)
25. Pearl River (3 Locks and Dams)
26. Cross Florida Barge Canal (2 Locks and Dams)
27. Mississippi River Pool 7
28. Kentucky River (Locks and Dam 1-14)
29. Ohio River Mile 0-127 (6 Locks and Dams)
30. Mississippi River Pool 2
31. Mississippi River Pool 24
32. Allegheny River System (Locks and Dams 1-8)
33. Little Goose Lock and Dam Lake Bryan
34. Mississippi River Pool 22
35. Mississippi River Pool 5A
36. Lower Monumental Lock and Dam
37. Lock and Dam #13 (Arkansas River Navigation System)
38. IWW Delaware River to Chesapeake Bay C & D Canal
39. Cape Fear River (Locks and Dams 1-3)
40. Lock and Dam #9 (Arkansas River Navigation System)
41. Monongahela Waterway (9 Locks and Dams)
42. Jones Bluff Lock and Dam (Alabama River)
43. W. D. Mayo L & D (Arkansas River Navigation System)
44. Green River (L & D 1-4 and Barren River L & D 1)
45. AIWW Albemarle and Chesapeake Canal
46. Greenup Locks and Dam (Ohio River)
47. Toad Such Ferry L & D (Arkansas River Navigation System)
48. Mississippi River Pool 5
49. Mississippi River Pool 1
50. Norrell L & D (Arkansas River Navigation System)

IV. Class B Lakes (continued)

51. Lower Keweenaw Entry Waterway
52. Winfield Lock and Dam (Kanawha River)
53. Gallipolis Locks and Dam (Ohio River)
54. Mississippi River Pool U&L St. Anthony Falls
55. Farmdale Dam
56. Bonnet Carre Floodway
57. Mojave River Dam
58. Starved Rock Lock and Dam (Illinois Waterway)
59. Belleville Locks and Dam (Ohio River)
60. Sturgeon Bay and Lake Michigan Ship Canal
61. Lock and Dam #16 (Ohio River)
62. Lock and Dam #17 (Ohio River)
63. Dresden Island Lock and Dam (Illinois Waterway)
64. Marmet Locks and Dam (Kanawha River)
65. Marseilles Lock and Canal (Illinois Waterway)
66. La Grange Lock and Dam (Illinois Waterway)
67. Brandon Road Lock and Dam (Illinois Waterway)
68. Lock and Dam # 15 (Ohio River)
69. Peoria Lock and Dam (Illinois Waterway)
70. London Locks and Dam (Kanawha River)
71. Menasha Lock and Dam (Lower Fox River)
72. Calisteo Dam
73. Bonneville Lock and Dam Lake Bonneville

## APPENDIX D

| TIMBER                                                                                                                                             | PROPERTY | LIVESTOCK AND LIVESTOCK USE                                                                                                                                                                                             | HUNTING AND FISHING                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Federal Law<br>(18 U.S.C. 1852)<br>Cutting, wantonly<br>destroying timber<br>from lands of the<br>U.S.                                             | 6,443    | Federal Law<br>(18 U.S.C. 1852) Open-<br>ing or destroying gate<br>or fence enclosing U.S.<br>lands driving live-<br>stock upon such lands<br>enclosed; knowingly per-<br>mit livestock to enter<br>any such enclosure. | Hunting, fishing,<br>possession of fire-<br>arms, etc., in vio-<br>lation of State law.                                |
| (18 U.S.C. 1853)<br>Unlawfully cutting<br>or wantonly injuring<br>or destroying any<br>tree upon the lands<br>of the U.S.                          | 3,223    | Destroying, molest-<br>ing, disturbing or<br>injuring property<br>or going on N.F. land<br>with intent to do so.                                                                                                        | Permitting dogs to<br>run at large in<br>violation of State<br>law.                                                    |
| Secretary's Reg-<br>ulations Cutting<br>or otherwise damag-<br>ing or removing any<br>timber except as auth-<br>orized by law or reg-<br>ulation.  | 5,665    | Tearing down or de-<br>facing Forest Ser-<br>vice notices.                                                                                                                                                              | 1,002                                                                                                                  |
| Removing any timber<br>cut under contract of<br>sale or permit before<br>scaling.                                                                  | 2,302    | Entering or using<br>F.S. building with-<br>out permission.                                                                                                                                                             | 2,065                                                                                                                  |
| Fraudulent marking or<br>identifying U.S. tim-<br>ber for cutting or<br>removal.                                                                   | 1,405    | Leaving F.S. building<br>in unsanitary condition.                                                                                                                                                                       | 830                                                                                                                    |
| Damaging or cutting<br>under any contract of<br>sale or permit any liv-<br>ing tree before it is<br>designated for cutting<br>by a Forest Officer. | 33       | Defacing or destroy-<br>ing objects of natural<br>beauty or scenic value.                                                                                                                                               | 395                                                                                                                    |
|                                                                                                                                                    | 2,302    | Using prohibited ve-<br>hicles during road<br>or trail closure.                                                                                                                                                         | 2,748                                                                                                                  |
|                                                                                                                                                    |          | Using prohibited ve-<br>hicles in cross-<br>country travel during<br>periods of closure to<br>such vehicles.                                                                                                            | Refusal to remove unper-<br>mitted nonexempt live-<br>stock upon instructions<br>from an authorized Forest<br>Officer. |
| TOTAL                                                                                                                                              | 27,302   | TOTAL                                                                                                                                                                                                                   | 6,546                                                                                                                  |
|                                                                                                                                                    |          | 42,406                                                                                                                                                                                                                  | TOTAL                                                                                                                  |

VIOLATIONS OCCURRING IN  
U.S. FORESTS, 1969

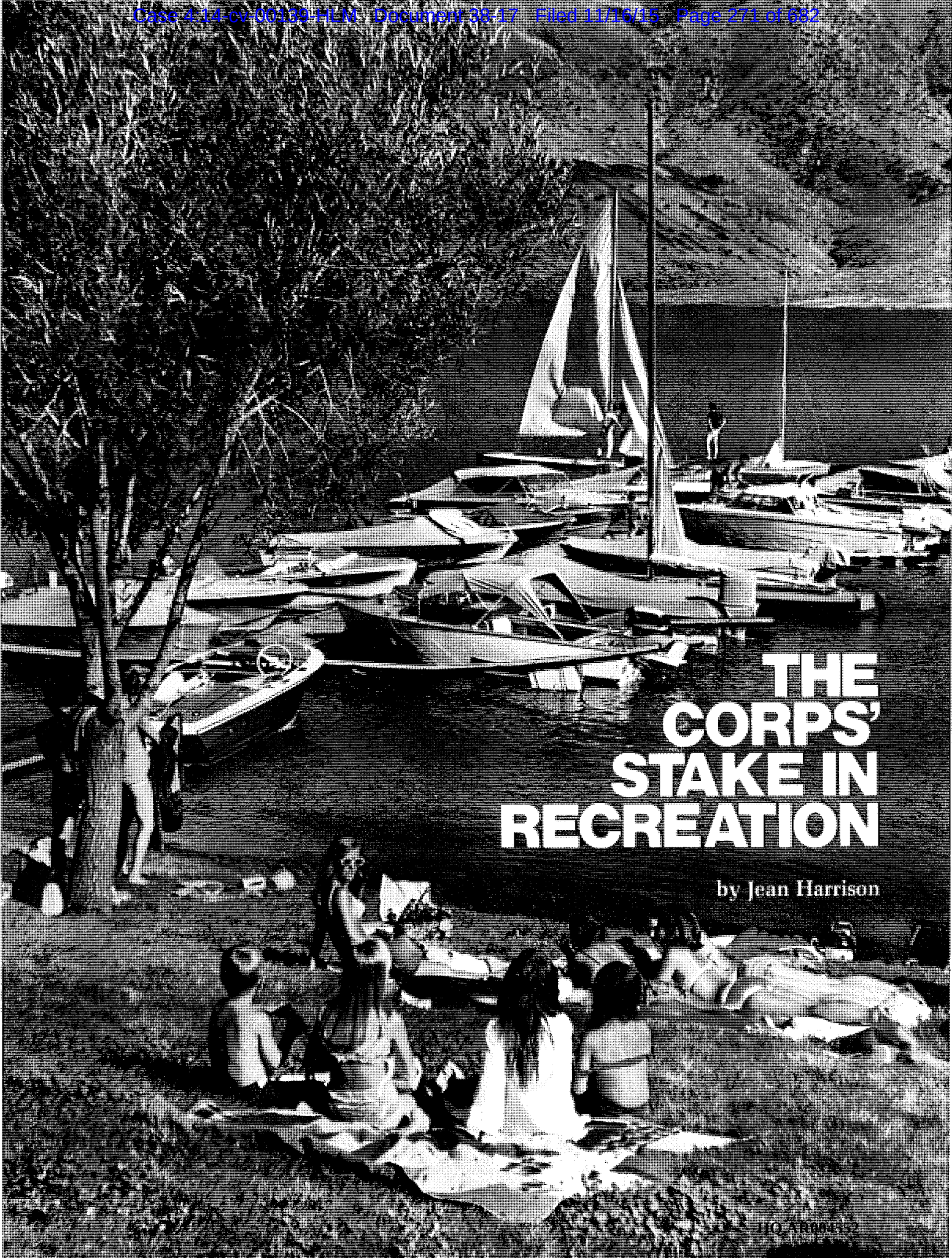
Source: U.S. Forest Service



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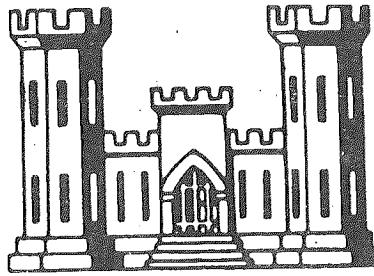


# THE CORPS' STAKE IN RECREATION

by Jean Harrison

HQ AR06452





THE SUBJECT of outdoor recreation naturally brings to mind the federal agencies which oversee the tumbling waterfalls, snow-capped mountains, towering pines, and fast-running rivers of the nation's famous national parks and forests. But growing in the public's eye are images of another federal agency's recreation lands—images of the wide expanses of clear, clean water, rolling hills, hardwood forests, and rugged shorelines found at U.S. Army Corps of Engineers lakes and reservoirs.

Today, Corps of Engineers projects are used for recreation by more people than are the recreation lands of any other federal agency. A close look at trends in public demand for outdoor recreation and the availability of outdoor recreation opportunities indicates why.

In the late fifties, Americans began to participate in outdoor recreation activities at a phenomenal rate and Congress established the Outdoor Recreation Resources Review Commission (ORRRC) to study the trend. ORRRC reported in 1962 that outdoor recreation activity had become a fundamental part of American life and predicted that national demand would triple by the year 2000.

Americans apparently are out to fulfill this prediction. According to surveys by the Interior Department's Bureau of Outdoor Recreation (BOR), participation in major outdoor recreation activities increased 100 percent between 1960 to 1970. The seventies have been no different. Public demand is accelerating as a result of higher incomes, shorter workweeks, more leisure time, and greater mobility. BOR now predicts national demand will quadruple by the year 2000.

#### **People Like Water**

Not only do Americans want more and more outdoor recreation experiences, but research also shows they prefer water-related experiences. Popular activities such as boating, water skiing, swimming, and fishing obviously are water related. But people are also drawn to recreation lands

*Ms. Harrison is an economist with the Recreation-Resource Management Branch of the U. S. Army Corps of Engineers.*

near bodies of water for other outdoor activities, such as camping, strolling, pleasure driving, outdoor games and sports, bicycling, picnicking, horseback riding, and hiking. In fact, the ORRRC stated that at the time of its report 40 percent of all types of outdoor recreation activity took place in or near water.

During recent decades the Corps of Engineers, through its Civil Works Directorate activities, has been developing and managing the largest water resource program in the nation. It was inevitable that people began using civil works projects such as man-made reservoirs and lakes for recreation.

Furthermore, most of the Corps' man-made lakes are located near population centers. Today, in fact, over two-thirds of Corps lakes used for recreation are located within 50 miles of a Standard Metropolitan Statistical Area (SMSA). (SMSAs are broadly defined as urban areas which encompass a county or group of contiguous counties which contain at least one city of 50,000 inhabitants or more. In the 1970 census, almost 70 percent of the U. S. population lived in SMSAs.)

#### **Attendance Growth**

The magnetism of these large bodies of water and their proximity to urban populations both help explain the large public attendance at Corps lakes during recent years, which has tripled since 1960.

Not only has the general public recognized the value of the lakes for recreation, so has the U. S. Congress. As far back as 1944, Congress gave the Corps general authority under the 1944 Flood Control Act to "construct, maintain, and operate public park and recreational facilities in reservoir areas under the control of the Secretary of the Army, and to permit the construction, maintenance, and operation of such facilities."

Since then, laws granting the Corps increasing greater recreation-resource management responsibility have been put into effect to more fully develop and protect Corps lakes and related lands for recreation. These laws cover more than just facility development. They direct the Corps to insure the safety and health of the visiting public, to protect natural resources for future genera-



*A happy girl holds a hefty string of fish caught at Dale Hollow Lake on the Tennessee-Kentucky border.*

U.S. ARMY CORPS OF ENGINEERS PHOTOS

tions, and to charge fees where appropriate to offset operation and maintenance costs.

The current recreation program focuses on some 400 major lakes on Corps land—more than 11 million acres of land and water and 40,000 miles of shoreline. During 1973 the public spent 344 million recreation days at these projects.

In the past, the Corps has provided public recreation opportunities both by developing its own facilities and by encouraging state and municipal agencies to develop and administer recreation programs at civil works projects. Today, costs for recreation development are shared equally by the Corps (representing the federal government) and nonfederal public agencies.

#### **Cooperative Efforts**

To date, 2,700 recreation areas have been developed. A breakdown shows 1,100 day and 800 overnight areas managed by the Corps, and 500 day and 300 overnight areas managed by other federal, state, or local agencies through inter-agency agreements, leases, or licenses granted by

the Corps. Also, there are approximately 400 commercial concessionaires who operate recreation establishments on Corps-managed lands and more than 300 concessionaires on areas not managed by the Corps.

In addition to developed recreation areas, people often use some 3,500 Corps areas with few or no recreation facilities. Some places are particularly desirable because of their geographical locations; at others, partially submerged roads make convenient boat ramps. Basic operation and maintenance services to protect visitors and the natural resources at these areas are provided by the Corps.

Two hundred fish and wildlife areas are leased to other federal agencies and states, and these areas are often open for public use or environmental education. There are also some 275 grants to quasi-public groups, such as boy scouts, girl scouts, and civic organizations.

On areas leased to state and municipal governments or to private concessionaires one finds such diverse outdoor recreation facilities as golf

courses, tennis courts, restaurants, lodges, marinas, and outdoor theaters. In total, there are more than 45,000 campsites, 50,000 picnic sites, and nearly 4,500 boat-launching lanes. Facilities are designed with the special needs of the young, aged, and handicapped in mind.

### Winter Activities

Recreation at Corps lakes does not stop with the summer months. During the winter people ice-fish, snowmobile in special off-road vehicle areas, and ski. Winter hiking and camping are both increasing in popularity.

The type of recreation facilities provided depends on public demands, which vary according to the geographic features, lake size, and location. A large windy lake encourages sailing, mountainous terrain encourages hiking, and a rugged shoreline and appropriate water levels encourage fresh-water fishing. A lake's location determines whether the public needs overnight facilities and whether the overnight facilities should be designed for nightly, weekly, or longer vacation stays.

It is useful to classify Corps of Engineer lakes into four categorical types: enroute, urban, desti-

nation, and regional. Some lakes, of course, fall into more than one category.

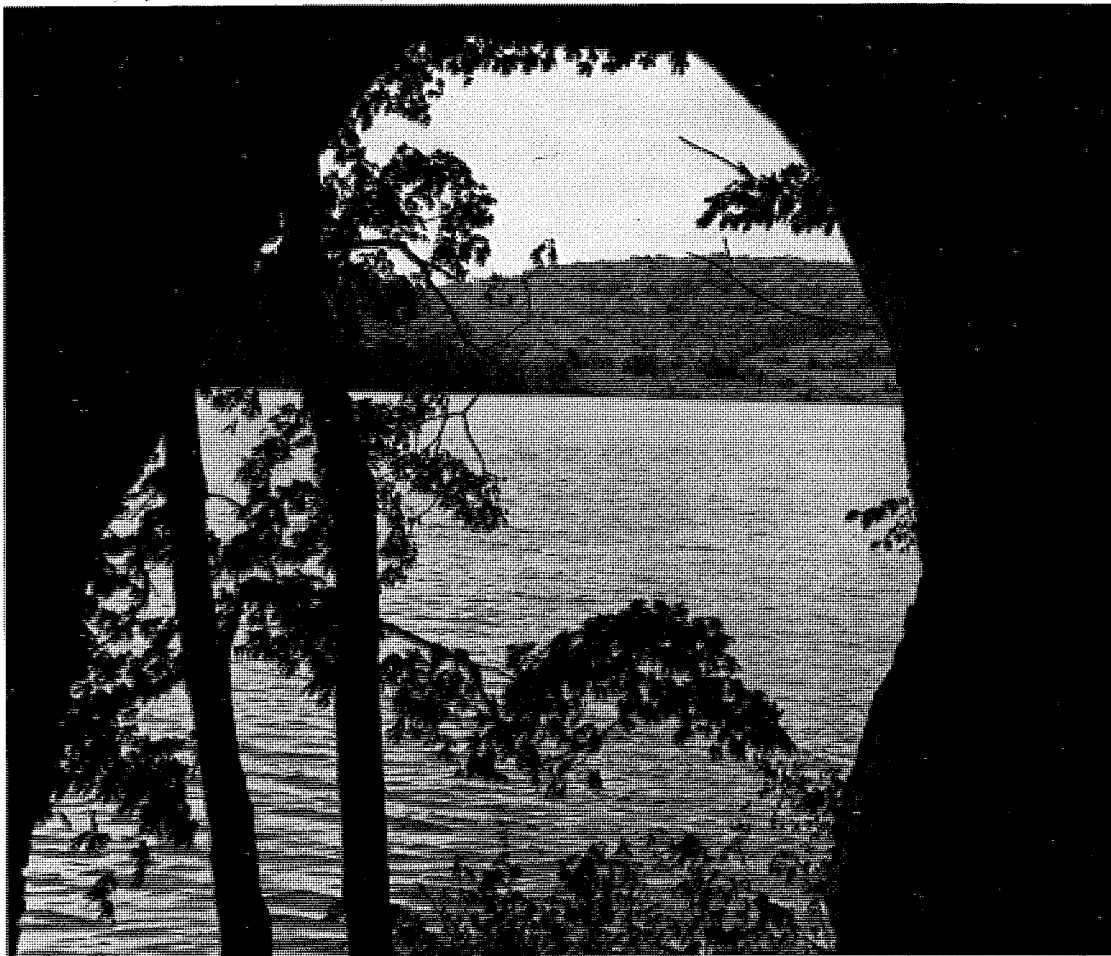
An enroute lake is located adjacent to or within an hour's drive of an interstate highway or major tourist route. Enroute lakes have many overnight visitors, usually people wishing to combine a travel experience with a pleasant overnight stay in a water-oriented environment. Basic overnight facilities are provided: campsites, water supplies, sanitation facilities, and often concessions for food and gas.

### Highway Stops

Many of the lakes serve as enroute stops for travelers heading south, north, west, or east. For example, people traveling south along I-95 and I-85 from the Northeast could stop at John H. Kerr Lake in Virginia, Hartwell Lake in South Carolina, and Lake Lanier in Georgia. Travelers moving west from Kansas City toward the Colorado state line would find Perry, Tuttle Creek, Milford, and Wilson lakes, all near I-70.

Also, lakes within a half-day's drive of an interstate and located along a major travel path (such as routes to national parks) will receive much overnight use. Travelers to Glacier National Park,

*The view from this shoreline cave overlooks water and wooded hills at Cordell Hull reservoir, in Tennessee.*







*Three youngsters wheel their bikes across a boat-launching ramp at Dexter Lake in Oregon.*

for instance, often stop enroute at Fort Peck Lake in Montana.

An urban lake is located less than an hour away from an urban area. Heavy day use and some one- to two-day overnight visits are common place.

Available at urban lakes are individual picnic areas, large group picnic shelters, swimming beaches with change houses, playground areas with equipment for small children, and ball fields. There are bike, off-road vehicle, and nature trails for young and old persons seeking solitude, sightseeing, or excitement.

Organized community groups use Corps lakes as sites for sponsoring their group activities in softball, fishing, nature study, arts and crafts, swimming, and boating. For example, the Nashville Metropolitan Board of Parks and Recreation operates a day camp for the underprivileged at J. Percy Priest Lake, located 10 miles from the metropolitan area. Within the Fort Worth metropolitan area, the Benbrook Lake area offers highly specialized facilities for day-use activities. These include a soccer field and golf course built by the city of Fort Worth, lighted ball fields and riding stables located on parkland the city of Benbrook has leased from the Corps, and community-maintained model airplane fields.

#### **Tourist Appeal**

A destination lake is located in a unique geographical region having its own tourist appeal. Usually these lakes are large and possess attrac-

tive geographical features. Tourists visit to participate in all types of outdoor recreation activities and usually stay five to 10 days.

Motel accommodations, restaurants, and other concession facilities are found near destination lakes. Rental bikes, boats, and fishing equipment are generally available, and some areas feature tennis courts and teenager or adult social centers. Private concessionaires usually play a major role in offering such facilities.

Corps lakes located in the Ozark region of Arkansas—an area of rivers, streams, and mountains which has a great dependence on tourism—are considered integral parts of both the regional economy and the landscape. Recently, the Missouri River Tourism Commission stated that the man-made attraction of Table Rock and Bull Shoals lakes in the southwestern corner of the state has greatly enhanced the natural beauty of the area. Each of these lakes features more than 700 miles of shoreline and 40,000 acres of water.

People often combine a sightseeing trip to the Ozark region with another kind of recreation experience. A family in a camper may use Table Rock as a home base from which to explore the surrounding Mark Twain National Forest and the Ozark National Forest to the south. The family might also visit the reconstructed 1880 western mining village of Silver Dollar City or attend a performance at the Shepherd of the Hills Farm's outdoor theater, where actors re-create a story of Ozark mountain family life. Not far away is Presi-

dent Truman's birthplace at Lamar. Between such trips the family might hike, boat, swim, fish, or simply rest by the lake.

Some lakes are large enough and offer enough recreation opportunities that proximity to outside tourist attractions is not necessary to draw crowds. Lake Lanier, a 38,000-acre urban lake located within an hour's drive of metropolitan Atlanta, has come to serve as a destination area for the entire Southeast. (As previously mentioned, because of its proximity to I-85, Lanier is also often used as an enroute lake.)

Lanier recorded almost 14 million visits during 1973, the highest visitation among Corps lakes in the United States and as large as the combined visitation totals announced for fiscal year 1973 by the National Park Service for Yellowstone, Yosemite, and the Great Smoky Mountains national parks. People are attracted by the lake's 500 shoreline miles of both rugged and rolling terrain, many small islands, and finger-peninsula woodlands containing a wide variety of trees and shrubs.

The agency encouraging both urban and destination use of the lake is the Lake Lanier Islands Development Authority. This state-created authority is building a recreation complex on four islands with a combined area of 1,200 acres and 20 miles of shoreline. Retired Maj. Gen. William Cunningham, former executive director of the Lake Lanier Island Development Authority, said, "Atlanta has 1.5 million people; 2.5 million are within one hour's driving range of the islands; and it is from these people that we shall be drawing our daytime visitation. For the nighttime visitation, we are counting primarily on the people who can reach here in a day's drive. In that connection, we serve a population in excess of 30 million people."

#### **Resort Facilities**

The Lake Lanier Island Authority is an excellent example of coordinated effort between government and private concessionaires. Together they are building a resort hotel, a lodge-convention center, family camping areas, golf courses, a village complex with all types of service stores, swimming pools, tennis courts, and playfields.

Regional lakes are usually smaller in size and located in relatively secluded natural areas. The average stay is a weekend; in fact, these lakes can be considered weekend retreats for urban areas. For example, people from Evansville, Indiana, and Louisville, Kentucky, can drive two hours and escape to outdoor solitude at Rough River, a small, 5,000-acre Kentucky lake. They can stay in the state-operated lodge, cabins, or campsites at one end of the lake, or in Corps tent and trailer camping areas located throughout the surrounding wooded, hilly terrain.

Not only are the type and location of recreation facilities determined by the geographical charac-

teristics, size, and location of each lake, but also by the surrounding communities. Just as a private community may focus activities around a small man-made lake, a larger public lake can become the focal point for intercommunity activities. Corps lakes are used daily by community organizations for special recreation trips or events. Fishing, sailing, canoeing, and water skiing clubs often sponsor regional and national competitions.

#### **Recreation-Resource Management**

The different types of Corps lakes and their surrounding lands are an integral part of the federal contribution toward the nation's recreation base. The Corps owns and manages, along with the National Park Service and the U. S. Forest Service, the federal lands which receive the majority of public recreation use. Since the public can enjoy the same outdoor recreation activities at Corps lakes as at national parks and forests, many people feel there may be a duplication of service or unnecessary competition among these federal agencies. This is not true because each agency is managing different kinds of resources, each a distinct component of the overall national resource base. The Corps manages large bodies of water—an extremely different environmental

*Corps ranger fixes wood-duck box to willow tree.*





setting from forests or canyons or geysers. Corps lakes are often located in different geographical locations and require different management techniques than those of other federal recreation programs. The Corps must enhance the recreation potential of its projects, yet balance this use with other project functions such as flood control, hydroelectric power generation, navigation, water supply, and fish and wildlife management.

In order to manage its multipurpose lakes effectively, the Corps has hired personnel from many disciplines—foresters, rangers, biologists, landscape architects, engineers, economists, and recreation planners. Today, its rangers not only help guide the public but also have citation authority over despoilers of federal land and work closely with local law enforcement officers to protect all visitors.

#### **Ecology Consideration**

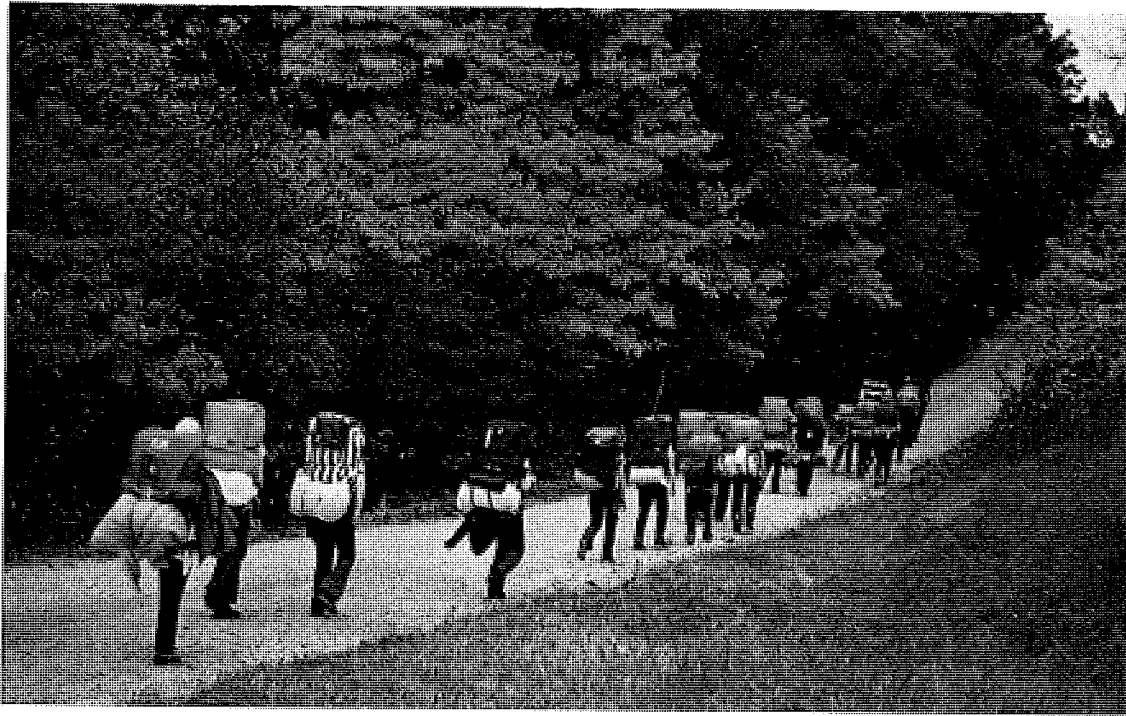
Other personnel specialize in protecting and preserving the natural resources at each project. Private development of public property by owners of adjacent lands is closely controlled. Permits for private moorage arrangements, landscaping, and waterlines are limited in order to preserve aesthetic values. Also, a land classification system

is used to limit recreation use in order to preserve certain areas in their natural state. Environmental plans developed for each project include provisions for preserving as well as enhancing wildlife habitats. The Corps works with state conservation agencies to improve the project ecosystems by applying the latest forest and fish and wildlife management techniques. Controls on water levels and water quality must be geared for both fish and wildlife and recreation needs.

The Corps' policy is that recreation areas on its project lands should be creative examples of maximum utilization of the resource base without destruction of those same resources by the people who spend their leisure time there. This commitment has been well stated by current Director of Civil Works Maj. Gen. J. W. Morris: "We want to see our facilities used for recreation to the maximum carrying capacity as long as this use is consistent with ecological, aesthetic, and historical values. In other words, we hope to place equal emphasis on managing both the people-oriented aspects of projects and the natural resources in a manner that recreation features will be here not only for present but future generations. That calls for managing all resources, both developed and natural, as an integrated whole."

*This raccoon has come down out of the trees to poke around a streambed at a Corps area in Tennessee.*





*The brilliant shades of autumn are reflected in the backpacks of these hikers at Monroe Lake in Indiana.*

### The Future

If the past rate of 10 percent annual growth should continue, attendance at Corps lakes would be over 1 billion visitors by 1984. However, a more conservative estimate of 400 million by 1984 is being used to guide future facility planning and design. Regardless of which estimate is correct, the Corps must face the problem of handling increasing public attendance on a fixed number of land and water acres.

Recent trends in private industry show how valuable lakes are as national resources. People have been buying permanent retreats near water and are willing to pay exorbitant prices for them. In 1972 over 60 percent of all second homes were located near water—primarily lakes, seashores, and rivers—and 47 percent of all planned recreation communities offered some sort of man-made or natural lake as one of their amenities. (These numbers come from a 1973 reader demographic survey by Hudson Home Publications Company's *Vacation Home and Leisure Living Magazine* and the American Land Development Association, respectively.) A federal agency must manage its lakes and lands in such a way as to insure that Americans not able to purchase their own access to water will still have some public place to go to enjoy the same recreation opportunities.

The effect of the energy shortage on participa-

tion in future outdoor recreation activities at lake projects cannot be predicted at this time. However, several observations can be made.

If people are to be limited to short-term trips, the nearness of Corps projects to urban populations might produce a more intense day-use demand. Furthermore, the importance of each lake as a prime destination area for its own region or community may increase; thus, each may become more and more an integral part of community activities. Just as public transportation systems allow the English to enjoy Brighton and the Belgians to visit Ostende for a day near water, public transportation systems could be provided to Corps lakes in the United States.

The public desire for recreation is not going to lessen because of an energy shortage, nor is the attractiveness of water as a stage for outdoor recreation going to diminish. As a part of the nation's recreation base, the acreage confined within the limits of Corps lake area boundaries will become more valuable with time. Whatever use patterns the future brings, a need for new equipment as well as demands for new types of recreation facilities can be anticipated. The Corps therefore will have to continue to maintain and improve the quality of its lakes and public lands through an active recreation-resource management program so that future generations may enjoy lake-related recreation experiences of their own. □

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# Report of the Secretary of the Army to the Congress

on

Visitor Protection Services at Corps of Engineers Lakes

DECEMBER 1974

CECW-ON

REPORT ON  
VISITOR PROTECTION SERVICES  
AT CORPS OF ENGINEERS LAKES

Prepared for  
U.S. Army Corps of Engineers

Under a contract agreement with  
PRC/Public Management Services, Inc.

October 29, 1974

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This report is the final submittal of a comprehensive study of the law enforcement needs and means of providing visitor protection at U.S. Army Corps of Engineers lakes. The study was conducted pursuant to a contract agreement between PRC/Public Management Services, Inc. (PRC/PMS) and the U.S. Army Corps of Engineers.

Executive review responsibilities for this study within PRC/PMS were performed by William Petersen, Vice President and General Manager of Management Services; Jerome Daunt, Executive Vice President; and Donald Roderick, Deputy General Manager of Management Services. Overall supervision and guidance was provided by Edmund Fennessy, Principal Associate-in-Charge, Operations and Policy Analysis Section. The study was directed and coordinated by Edward Connors. Other members of the study team participating in the analysis of the data and the development of courses of action included: Philip Lynn, J. Thomas McEwen, Alexander B. Bigler Associates, and Economics Research Associates. Primary assistance in the field work and report preparation was contributed by the following study team members:

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## PREFACE

The problem with evaluating such an extensive and previously untouched area of criminal justice is the lack of direction or standards and the multiplicity and variety of findings or problems one uncovers. The first step is the first study.

The current study, while being for the benefit of the Corps management, also sheds light on the state of the art of law enforcement and visitor protection in recreation areas and facilities. The corps should recognize that with the increasing prominence of leisure activities, recreation use, and natural resource protection, this study only represents the opening of a coming field of endeavor. As these commodities become more precious, the Corps will be called to exercise unique and resourceful management operations. Long-range planning for these operations will help ensure effectiveness.

It is hoped that this study may assist the Corps in developing: 1) A more precise definition of the role of recreation and visitor protection in the Corps present and projected growth; 2) Specific policy relating to the implementation of standards and goals for visitor and resource protection; and, 3) Programs and practices of technical, organizational, and management assistance aimed specifically at policy implementation. Improved law enforcement and visitor protection services are an inextricable part of recreation policy which serves to improve the management of progressively increasing numbers of public users, and ultimately, the recreation user's experience.

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## Chapter 1

### PROJECT OBJECTIVES

The Corps of Engineers has recognized for several years that the management of visitors at the Corps lakes has become increasingly difficult and that lack of law enforcement and security at the lakes was compounding the problems of the recreation-resource rangers. Immediate reaction to these conditions was not attempted, however, due to the fact that the actual status of the Corps law enforcement "problem" was not accurately known either in terms of severity or priorities.

As a consequence, PRC/PMS was contracted in an effort to more precisely assess the present visitor protection and security conditions, and to determine the cost and adequacy of various alternatives to improving these conditions. These findings are then intended to assist the Corps of Engineers in making decisions for a future course of administering effective visitor protection. More specifically, the study was authorized by Section 75 of the Water Resources Development Act of 1974 (P.L. 93-251) which states that:

"The Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to study the need for and means of providing visitor protection services at Water Resource Development Projects under the jurisdiction of the Department of the Army and to report thereon to the Congress with these recommendations..."

The actual content of the desired study was outlined in the Corps of Engineers' Request for Qualifications which appeared in the Commerce Business Daily, April 1, 1974. The overall objectives of this study have adhered closely, but have not been limited to the articles of the Corps Request.

In general terms the study has attempted to fulfill two broad objectives namely: 1) to determine the adequacy of current law enforcement operations and procedures as available through the Corps citation program and authorized law enforcement agencies; and 2) to present and discuss various alternative means of providing law enforcement services in the context of operational, fiscal, administrative, and organizational terms.

This report will more closely address the methodological concerns involved in accomplishing these goals in the chapters on methodology and analysis. In the present context it is sufficient to note the various sub-objectives which have gone into fulfillment of study goals. These include:

- The development of standards to achieve adequate visitor protection services and from which to more adequately plan and evaluate law enforcement service sufficiency;
- Analysis of the present level of services available to Corps lakes in operational and fiscal terms as well as those provided by the Corps;
- Correlation of other related park and recreation experiences to that of the Corps through site interviews on federal, state, and local levels;
- Review of the literature pertaining to law enforcement in recreation areas and facilities;
- Development of alternatives for law enforcement at Corps lakes with assessment of merits related to the Corps, state and local agencies, federal and local courts, as well as the recreation users.

## Chapter 2 BACKGROUND FOR THE STUDY

### A. Overview of the Corps of Engineers in Recreation

The U.S. Army was the first Federal agency to protect public park lands when they were called in to protect the resources of Yellowstone National Park in 1886.<sup>1</sup> The Army's responsibilities were soon extended to complete control of operations of the park. This role lasted for 30 years until terminated at the beginning of World War I when troops were needed elsewhere. Shortly thereafter Congress created the National Park Service to continue with resource protection.

In the years between World War I and II, the civil works activities of the Army Corps of Engineers became extensively involved with constructing and maintaining navigation works along the nation's harbors and rivers. The Corps, along with other Federal agencies, became more involved in reservoir construction with the Flood Control Act of 1936. This Act declared flood control a Federal activity.

The Corps activities in water resources development were reviewed as pursuing the national interest in security, public safety and economic growth, and in recent years with environmental quality.

With the attraction that water holds for outdoor recreation, the waterways, navigation pools and lakes managed by the Corps have always been visited by recreationists. Congress has consistently held that water bodies and surrounding lands developed with public dollars should be accessible to citizens for their enjoyment. What started over a hundred years ago as kids skinny-dipping in a navigation channel and families

picnicking along the shady banks of a waterway has evolved into a major outdoor recreation activity in America. The growth of recreation use of Corps water projects has reflected the overall increase in outdoor recreation activity in America, and has become an important part of the Corps civil works responsibility.

When the National Park Service was established<sup>2</sup> and replaced the Army at Yellowstone National Park, a ranger force was initiated to service and protect the park and visitors. The historical need to protect park lands from despoilers was also manifested in city parks and other recreation areas, particularly in the larger cities. At the same time the Army and National Park Service were protecting Yellowstone National Park, many of the large cities in the early 1900's were establishing special park police forces to control vandalism in their park and recreation areas. Most of these were established within the local municipal police departments.

Much of the law enforcement and visitor protection in Federal park and recreation areas was left to the park ranger. The park ranger, however, became known for his interpretation of the environment and his visitor courtesy functions. Not many individuals considered him a law enforcement officer.

As attendance increased at national parks, visitors began to look to the park ranger for control and personal security in concentrated areas where antisocial behavior began to occur. In 1897<sup>3</sup> Congress empowered the Secretary of Agriculture to make rules and regulations for the use of the National Forests, and in 1905 extended to the Forest Service the authority to make arrests for the violation of laws and regulations.<sup>4</sup> The 1905 Act also extended arrest powers to the National Park Service in managing National Park lands.<sup>5</sup> The 1916 Congress granted full police powers to the U.S. Park Police in the District of Columbia.

It soon became apparent that uncontrolled forces of the industrial society and mass immigration movements were making marked changes in

human behavior. Park grounds were not safe places to be alone. What was once considered a pleasurable experience was now considered in need of armed guards.

While this changing scene in recreation was becoming more apparent, the Corps of Engineers was slowly entering the periphery of the field.

With Corps water impoundments becoming more attractive to recreation use, Congress gave the Corps authority to provide public outdoor recreation facilities at its projects in the Flood Control Act of 1944.\* The Corps recreation authority was broadened in 1962 to cover all types of water resources projects, not solely reservoirs, in conjunction with the adaptation of Senate Document 97 which declared recreation as a full partner in the nation's multiple purpose water resources development programs. The Federal Water Project Recreation Act of 1965 further spelled out cost-sharing arrangements under which recreation developments can be provided at new projects (after 1965).

While these Acts provide the Corps with an overall legislative mandate to provide recreation facilities at their reservoirs, they do not provide specific guidance on how to cope with the increasing demands of resources management, changing recreation interests of visitors, and needs for public safety and visitor protection. There has not been a specific law enforcement mandate given to the Corps by Congress as with the Forest Service and the Park Service.

What was originally envisioned as minimum basic facilities for public safety, sanitation, and access are being exceeded by increasing standards for public health and water quality. Intensive use of developed recreation areas is placing extreme pressure on the Corps to be resource

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\*The recreation authority is contained in Section 4 of the 1944 Flood Control Act which states: "The Chief of Engineers...is authorized to construct, maintain and operate public park and recreational facilities in reservoir areas under control of (the Department of the Army), and to permit the construction, maintenance and operation of such facilities."

managers and to provide better recreation support service to visitors. The need for visitor protection has become a sensitive aspect of public use of Corps recreation areas as has the impact of vandalism, littering and environmental damage such as fire and erosion.

Prior to 1968, the Corps of Engineers would complete a project, open it to the public for recreation, and helplessly watch it slowly be despoiled. As this state of affairs finally came to the attention of a few members of Congress, the Corps was granted administrative authority to enforce rules and regulations, contained in Title 36 of the Code of Federal Regulations, relating to protection of project resources.

Before this new tool was even oiled, it became apparent that more drastic measures might be in order. In the early 70's, parks all over the United States found themselves in conflict, philosophically and physically, with unwanted counter-culture visitors. Many scenes of altercation were being related by the media, and parks and recreation facilities were just one of the many areas to reflect the mass confusion of those years.

However, it soon became the issue that this "trend" in vandalism and crime was not going to subside unless it was by government intervention. Law enforcement agencies throughout the country began receiving priority funds from Federal and local governments to increase manpower and equipment to quell the rise of crime and its attendant fear.

This fear began to grip the recreation field in full force. It was a fear because few studies uncovered actual findings and few recreation agencies kept crime statistics.

In 1971 three of the major Federal land holding and managing agencies, the National Park Service, Bureau of Land Management,<sup>6</sup> and the U.S. Forest Service,<sup>7</sup> initiated internal studies attempting to identify and cope with rising crime and vandalism. The Corps of Engineers, being the

newest Federal agency to enter the recreation field, has also found crime and vandalism a problem. A recent evaluation of Corps recreation-resource management found that in the Corps transition from construction to management, it is lagging in its capability to cope with the problems of managing resources and people.<sup>8</sup>

What these studies and others had hoped to find was a new direction for the organization. Direction in the form of goals and objectives to cope with the problem. While one would suspect or hope that the ends of these objectives would all be to promote the recreation experience, the efficacy of the means employed by some of these agencies has become exceedingly questionable.

In this view, the Corps of Engineers has shown welcome restraint, by closely studying the problem and evaluating their first basic enforcement measures. While oftentimes the initial reaction is to seek a law to outlaw certain behavior, this action should only come after thorough and careful analysis of the ramifications of this action. It has been well said that no law is better than a bad law.

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3. Act of June 4, 1897, as amended (16 U.S.C. 551).
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6. Donald Halsey, et al., Law Enforcement Study, (3 volumes), U.S. Bureau of Land Management, Sacramento, California, July 1971.
7. Joseph Couch, et al., Law Enforcement Organization Study, U.S. Forest Service, Washington, D.C., June 1971.
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### Chapter 3

#### RECREATION AND THE CORPS

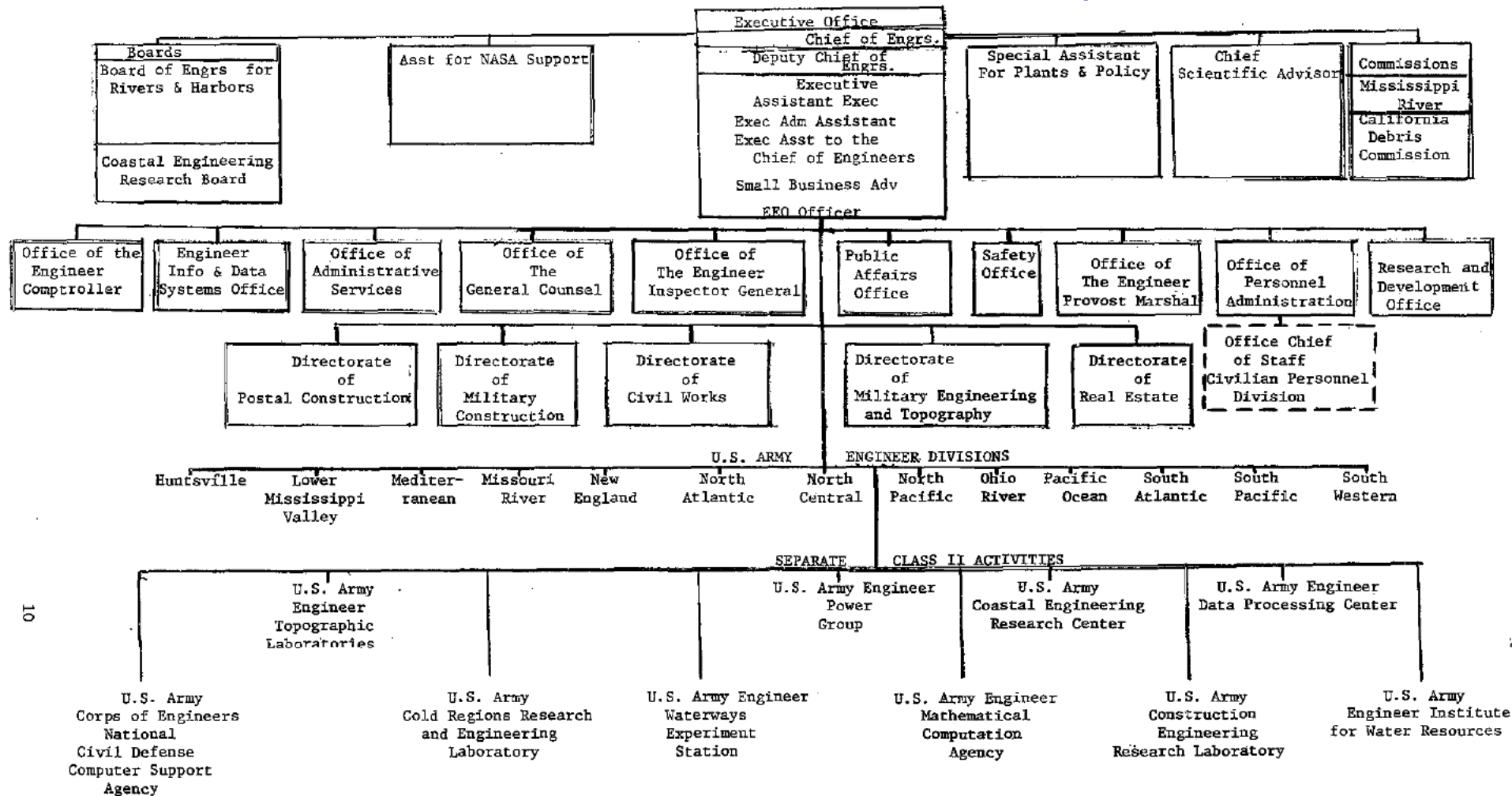
##### A. Organizational Structure

The Corps of Engineers is located in the Army Department within the Department of Defense. The Corps is divided into five functional directorates and 11 staff office units, as indicated in Figure 3-A. The Civil Works Directorate is the primary organization under the Chief of Engineers responsible for recreation. Recreation is included within the Corps Civil Works responsibility for multipurpose water resources management.

At the field level, the nation is divided into 11 Divisions and 37 Districts (the New England Division and District are combined), as shown in Figure 3-A. The chain of command flows up from the individual water project manager, to the District Engineer, to the Division Engineer, and to the Office of the Chief Engineers (OCE). The recreation responsibility is divided among several units within the Civil Works Directorate, as indicated in Figure 3-B. Law enforcement matters also involve the Office of the Engineer Provost Marshal and Office of the General Council at the OCE staff level. Additionally, the Directorate of Real Estate handles real estate transactions at Corps recreation areas administered by Civil Works.

##### B. Corps Investment in Outdoor Recreation

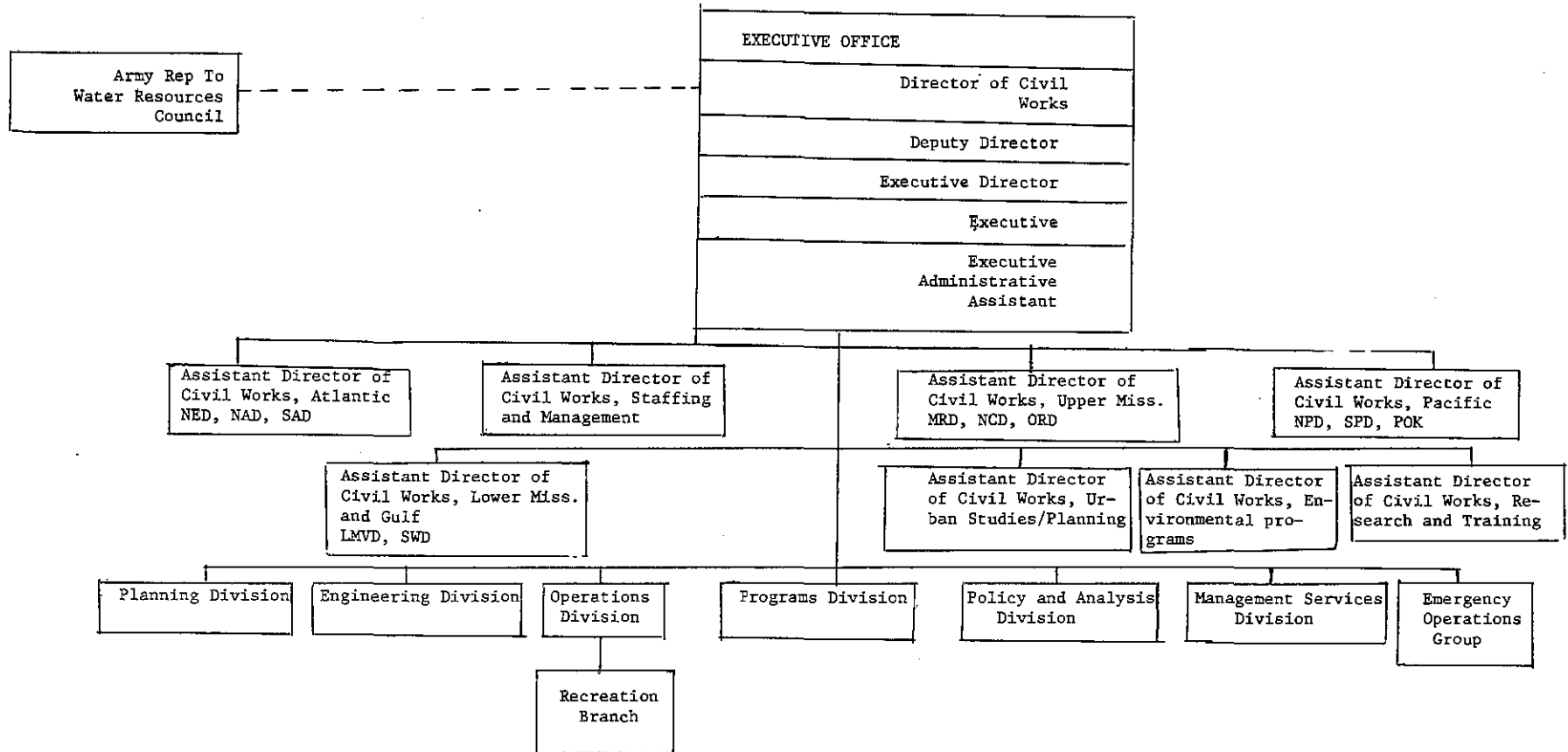
The increase in outdoor recreation activity since World War II has been reflected in attendance at Corps lakes. In 1962 the Outdoor Recreation Resources Review Commission estimated that almost half of all outdoor recreation activity was water-related. Attendance at Corps recreation



(Source: U.S. Army Corps of Engineers)

FIGURE 3-A  
ORGANIZATION CHART, CORPS OF ENGINEERS

OFFICE CHIEF OF ENGINEERS



(Source: U.S. Army Corps  
of Engineers)

FIGURE 3-B  
PARTIAL ORGANIZATION CHART,  
DIRECTORATE OF CIVIL WORKS

areas has increased ten percent a year during the last decade. In 1973 attendance at the 333 Corps lakes exceeded 321 million.

There are some 5400 developed recreation areas at Corps lakes. All or part of 44 Corps lakes are managed by other federal agencies, and 700 recreation areas are managed by state or local public agencies. About 400 private concessionaires are operating on Corps-managed recreation areas plus a large number of sub-leases from state and local managed areas. There are over 300 quasi-public areas such as scout and community organization campgrounds.

The range of recreation facilities typically provided at Corps lakes is shown in Table 3-1. These figures indicate the general order of magnitude and character of outdoor recreation activity occurring at Corps lake recreation areas.

The Corps of Engineers program for developing recreation facilities started in fiscal year 1957. Since that time the Corps has initiated over \$89 million in recreation facilities at 281 completed projects through fiscal year 1973.\* It is estimated that non-federal investments in outdoor recreation facilities at Corps lakes have about equaled Corps investments.<sup>1</sup>

The Corps capital investment for recreation development for FY 1973 was about \$19 million. Operation and maintenance (O&M) costs run about the same as capital costs annually.

#### C. Social Impact of Recreation on the Corps

People visiting (Corps) recreation areas are seeking an enjoyable recreation experience. People on a recreation outing generally have a

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\*These funds were appropriated for the Corps program for "Recreation Facilities at Completed Projects," referred to as the "Code 710" program. These capital investments are designed to supplement recreation facilities built during initial reservoir project construction. Initial project recreation facilities generally are designed to serve recreation demands for three years following completion of the project.

TABLE 3-1

Kinds of Outdoor Recreation Facilities Built by Corps  
and Others at Completed Lakes

| <u>Facility</u>        | <u>Corps</u> | <u>State/<br/>Local</u> | <u>Concessionaires</u> | <u>Quasi<br/>Public</u> |
|------------------------|--------------|-------------------------|------------------------|-------------------------|
|                        | (1)          | (2)                     | (3)                    | (4)                     |
| Access roads           | X            | X                       | X                      | X                       |
| Circulation roads      | X            | X                       | X                      | X                       |
| Parking areas          | X            | X                       | X                      | X                       |
| Boatlaunch ramps       | X            | X                       | X                      | X                       |
| Overlook               | X            |                         |                        |                         |
| Picnic areas           | X            | X                       |                        |                         |
| Camping areas          | X            | X                       | X                      | X                       |
| Swimming beach         | X            | X                       |                        | X                       |
| Swimming pool          |              | X                       | X                      | X                       |
| Boat rental            |              |                         |                        |                         |
| facilities             |              | X                       | X                      |                         |
| Playgrounds            | X            | X                       |                        | X                       |
| Trails                 | X            | X                       |                        | X                       |
| Service & supply       |              |                         |                        |                         |
| stores                 |              | X                       | X                      |                         |
| Dining                 |              | X                       | X                      | X                       |
| Motels                 |              | X                       | X                      |                         |
| Cabins and dormitories |              | X                       | X                      | X                       |
| Golf courses           |              | X                       |                        |                         |
| Riding stables         |              | X                       |                        |                         |
| Water systems          | X            | X                       | X                      | X                       |
| Sanitary system        | X            | X                       | X                      | X                       |
| Electric and           |              |                         |                        |                         |
| telephone              | X            | X                       | X                      | X                       |
| Misc. support items    | X            | X                       | X                      | X                       |
| Admin. & Maint.        |              |                         |                        |                         |
| facilities             | X            | X                       | X                      | X                       |

(Source: U.S. Army Corps of Engineers)

lesser propensity to intentionally commit crimes or demonstrate anti-social behavior. On the other hand, in a recreation area people are more vulnerable to opposing forces and buffer zones are less apparent. The value of recreation equipment is increasing and becoming more of a target for theft.

Many misdemeanors, vandalism, traffic violations and personal disturbances which interrupt recreation experience either go unreported, or are not of the kind that are reported in major statistics. However, witnessing the occurrence or the aftermath of antisocial behavior--reported or not--has an impact on the recreation visitor. This impact is amplified because of his increased sensitivity to the environment and social circumstances within which his or her recreation is pursued. Invariably, the impact is a negative one, detracting from the quality of the recreation experience, at times even to the extent of causing anxiety or fear.

While the visitor to a Corps area may be motivated toward a constructive recreation experience, other environmental influences may come into play. Densities build up, traffic increases, people get careless with litter, vegetation becomes trampled, alcohol extends a conversation into an argument, and the Corps ranger has a difficult situation with which to contend.

Many of the visitor protection problems continue with the unintentional assistance of the environment. The older recreation areas were not designed with a view toward visitor control and protection. Inadequate development of recreation areas has resulted in difficulty and increased costs for management and providing law enforcement services. Such developmental deficiencies could be corrected and over the long run would prove to be cost-effective.

One such deficiency concerns the main access to most Corps reservoirs which relies on the roads that were crossing the river valleys before the reservoir was constructed. Some lakes, such as Lake Texoma in

Texas, have many road access points around the shoreline. Consequently, the recreation areas that developed along these existing roads generally are difficult to control.

About two-thirds of the Corps lakes are within 50 miles of a Standard Metropolitan Statistical Area. Many, such as Old Hickory Lake and J. Percy Priest Lake around Nashville, Tennessee, are located within or near concentrated metropolitan areas. In the case of some lakes, like Old Hickory, there was little adjacent land taken in the project, and urban development has occurred right up to the edge of the lake. The panoply of urban problems have carried over in these situations.

Even at some of the rurally located lakes, urban-type growth stimulated around Corps lakes has resulted in increased law enforcement problems. For example, the off-season resident population around Lake of the Pines in Arkansas is around 13,000 people. This increases to about 150,000 people in the summer with the large amount of second-home development around the lake. This heavy population puts additional pressure on the local sheriff to extend law enforcement services.

Local sheriff and police departments often are reluctant to extend their services to Corps recreation areas within their jurisdiction that are heavily used by non-resident visitors. The tax revenues generated by second-home development attracted to the Corps lakes are viewed, in some cases, as generating less revenues than the cost of local services which they incur. State and local agencies have also been reluctant to assume management of Corps recreation areas where use fees are not adequate to cover O&M costs, including law enforcement. The Corps has recently been giving priority budget attention to upgrading existing recreation areas to be able to charge fees under the law and thereby become more economically self-sufficient.

An important point to be made is that in the minds of visitors coming to a Corps recreation area, security has, indeed, become an important concern. It was revealed in one study on user fees of a Corps lake that

people would be willing to pay use fees if the money collected were to be put directly back into the recreation area.<sup>2</sup> And what they wanted most in that regard was better security. Visitors wanted to see more of the uniformed ranger which signifies security, even if it were only at the entry gate where fees are collected. Seeing the ranger serves as a deterrent to antisocial behavior and provides a sense of security, even though the ranger's actual law enforcement powers are now quite limited. Also, in the interviews conducted under this study, it was frequently indicated by local authorities that law enforcement problems had been significantly reduced by the initiation of the Corps Ranger Citation Program.

On an individual basis, some Corps rangers have done a commendable job in handling visitor control and protection problems. However, it is apparent from this study that, as it is now constituted, the Corps ranger force generally is not prepared in numbers, background, training, or mission to provide the kind of law enforcement measures needed at Corps recreation areas.

The preservation of the opportunity for, and quality of, a visitor's recreation experience is the paramount goal in providing visitor protection at Corps recreation areas. Law enforcement measures to protect the natural resources and developed facilities at a Corps lake may also be viewed as necessary ingredients to a meaningful and fulfilling recreation experience of an individual. Alternative ways to provide visitor protection and law enforcement to these ends are discussed in the rest of the report.



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1. Code 710: Program Recommendations FY 1974, Office of the Chief of Engineers, U.S. Army Corps of Engineers, Washington, D.C., September 1972, p. 2.
2. N.C. Wolff, Demand for an Economic Impact of Outdoor Recreation at Lake Tenkiller, unpublished Masters Thesis, Oklahoma State University, Stillwater, Oklahoma, May 1973.

## Chapter 4

### PROJECT METHODOLOGY

#### A. Introduction

The significance of the findings in any type of research or investigation rests heavily on the adequacy of the sampling methods. Based on this maxim, the present study effort attempted to devise a sampling plan which would generate universal or national implications.

The scope of work of the project was directed towards an assessment of the current level of visitor protection at the Corps of Engineers lakes and the means of providing adequate protection in the future. In order to obtain the necessary information and data to accomplish the objectives of the study, it was determined to proceed with a multi-phasic approach.

Prior to the initial planning stages, the study approach consisted of combining the unique disciplines of criminal justice and public safety planning with recreation-resource management planning and economics and tourism. Specifically, PRC/PMS teamed with Economic Research Associates, another Planning Research subsidiary, and with Alexander B. Bigler Associates, an independent consultant in recreation-resource management planning.

After establishing clear managerial coordination and management policies between the partners, PRC/PMS met with representatives of the Corps of Engineers to establish mutually accepted goals and objectives for the study. As a result of these conferences, the study team designed the various elements of the multi-phasic approach. Each phase of the study approach will be described in the following sections.

## B. Site Selection

This phase of the approach was the most sensitive to design. The basic problem was how to select a representative sample of Corps lakes, considering that the Corps maintains over 333 recreation lakes with annual visitor attendance exceeding 321 million and that these lakes are broadly divergent in size, geographic location, and use. Further complicating the selection planning was the limited time frame of completing the first draft of the study in 14 weeks. Relying on the corporate resources of PMS, the study team was able to draw from a large base of talent to perform the site visits within this narrow time frame.

Planning the selection of a representative sample was directed by the aim of visitor protection. It is logical that this phenomenon should be affected by the factor of population density. Thus attendance statistics naturally served as the starting point for limitation or selection.

It is necessary to point out that the selection analysis was based on data present at the time. This data revealed a total of 333 lakes. Analysis of the findings further in the project will be based on a different number of lakes. Suffice to say at this point, that the Corps of Engineers has constructed many locks and dams, canals, and river pools which are not clearly delineated in the reporting system as a large lake would be and do not have the attendant problems to be considered within the project.

The distribution of attendance among the lakes provided some significant information relating to lake problems. Based on 1971 data, the total reported attendance at the 333 lakes listed by the Corps was approximately 321,977,000. Further analysis, depicted in Figure 4-A, revealed that 26 of the lakes accounted for 118,900,000 visitors. That is, 7.8 percent of the lakes accounted for 36.9 percent of the attendance. At the other extreme, 230 of the lakes accounted for only 21.0 percent of the attendance. Each of these 230 lakes had annual attendance of less than one million.

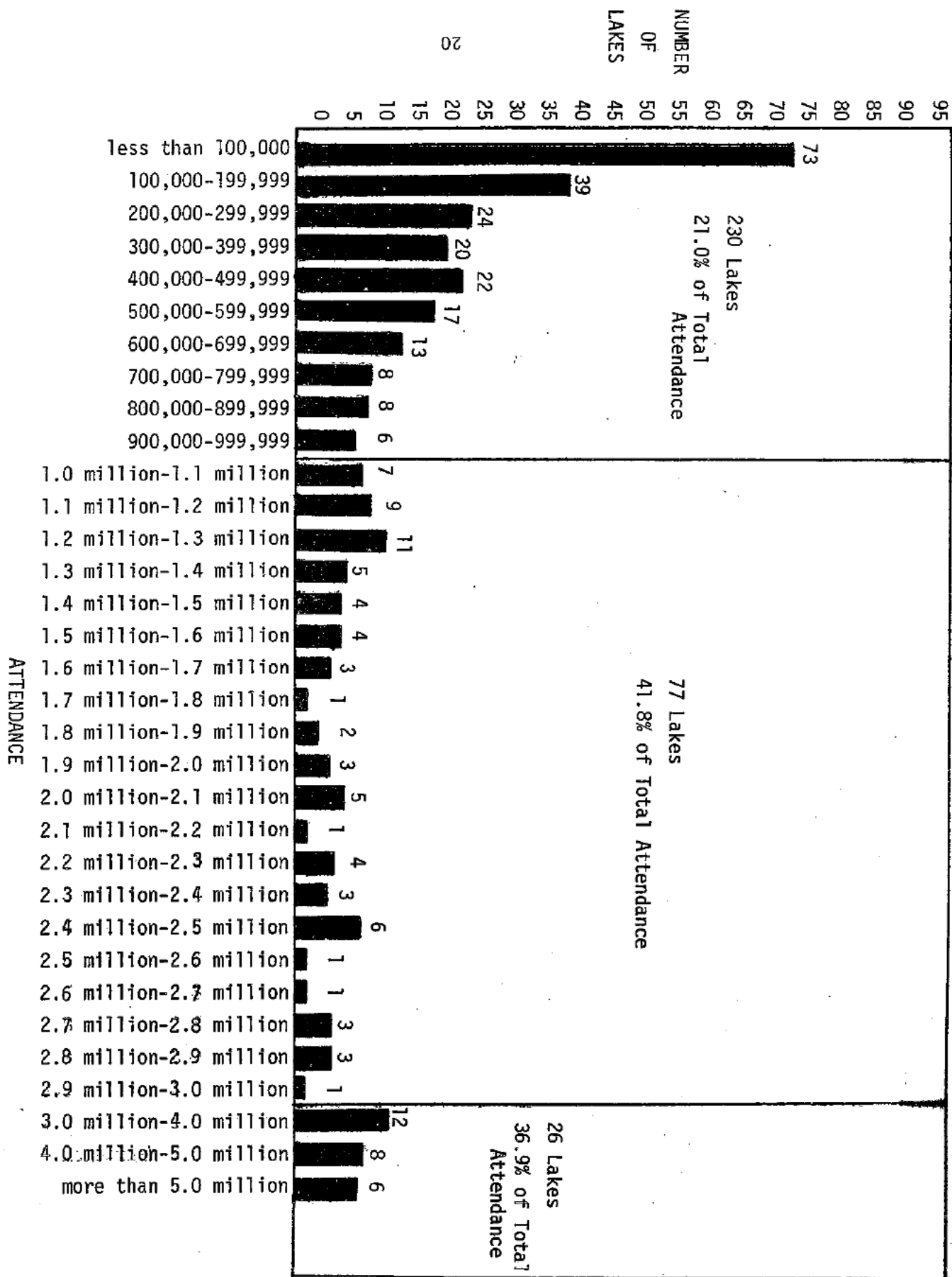


FIGURE 4-A U.S. ARMY CORPS OF ENGINEERS LAKES GROUPED ACCORDING TO ANNUAL RECREATION ATTENDANCE  
(Source: PRC/PMS)

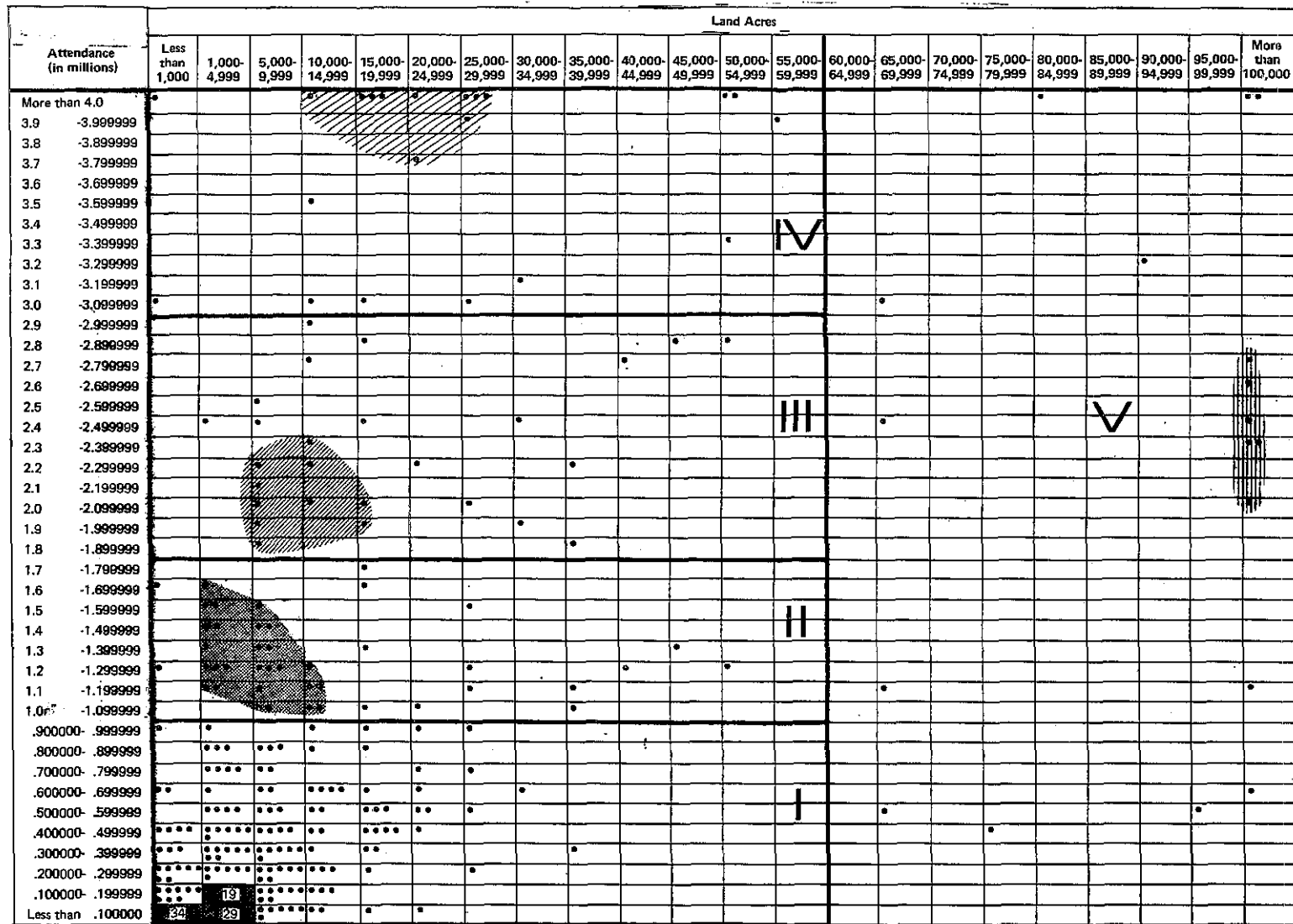
It was anticipated that in terms of severity of visitor protection problems, the less attended lakes would not reveal the same magnitude of problems as the larger attended lakes and, thus, would not warrant the same consideration in the sample selection. The major concentration, in terms of site visits, was necessary at the 100 or so lakes which accounted for almost 80 percent of the total visitor attendance at Corps lakes.

Another dimension of the law enforcement and control problems is size of the lake. Combining attendance with land area, displayed in Figure 4-B, revealed significant similarities among lakes. The preponderance of small lakes with low attendance is obvious in Figure 4-B. Figure 4-B also shows four clusters of similarly situated lakes that deserve special consideration. Cluster A indicates six lakes that are very large in land area and slightly larger than average attendance. Cluster B has small to average land area, but very high attendance. Clusters C and D have small to average land area and average attendance.

These similarly situated lake clusters provide a subdivision of Figure 4-B into five regions:

- Region I    -- Land area less than 60,000 acres and attendance less than 1 million
- Region II   -- Land area less than 60,000 acres and attendance between 1.0 and 1.8 million
- Region III -- Land area less than 60,000 acres and attendance between 1.8 and 3.0 million
- Region IV   -- Land area less than 60,000 acres and attendance greater than 3.0 million
- Region V   --- Land area greater than 60,000 acres

It was anticipated that each region would have unique problems of law enforcement and visitor protection and that the lakes within the clusters would be similar. Thus, selecting a lake from similar lakes would apparently be representative of the lakes in the cluster.



(Source: PRC/PMS)

Figure 4-8

HQ AR004594

Based on the above analysis, it was decided that the site visits should be selected according to the following:

- Region I     -- 3 lakes
- Region II    -- 2 lakes (both from Cluster D)
- Region III   -- 2 lakes (both from Cluster C)
- Region IV    -- 3 lakes (2 from Cluster B)
- Region V     -- 2 lakes (both from Cluster A)

According to this site selection plan, PRC/PMS staff was able to personally visit and conduct interviews at over 20 percent of the similarly situated clusters within Regions II through V, indicated in Figure 4-B, which accounted for almost 80 percent of the total visitor attendance at Corps of Engineers lakes.

Rather than merely selecting the sample lakes at random from the clusters, it was decided that, as much as possible, the survey should attempt to be geographically representative. Additionally, in order to allow for the possibility of different types of law enforcement problems, the survey included a mix of urban and rural lakes in the sample. This was a complex task due to the obvious misinterpretations of the terminology. It was decided to use the standard Corps definitions and tabulations for urban and rural lakes.

After final consultation with the Office of the Chief of Engineers (OCE), it was decided that the sample lakes to be visited by the PRC/PMS staff for field interviews would consist of the following sites:

- Region I
  - Hop Brook Lake
  - Green Peter Lake
  - Grayson Lake
- Region II
  - Isabella Lake
  - Shenango River Lake

## Region III

Pomme de Terre Lake

DeGray Lake

## Region IV

J. Percy Priest Reservoir

Lake Sidney Lanier

Grapevine Lake

## Region V

Oahe Dam

Lake Wright Patman

Figure 4-C depicts the sample of sites visited according to visitor attendance, geographic location, and urban or rural character. Upon viewing this Figure, it was apparent that a small, urban/suburban lake from the midwest was needed to round out the sample. For this reason, Red Rock Dam was included in the sample.

In addition to visiting the lake sites, PRC/PMS staff also interviewed and collected data from key personnel at OCE, and each Division and District office of the corresponding lakes. Furthermore, all law enforcement agencies with contiguous jurisdiction were surveyed, both on the state and local level, as well as the corresponding judicial officers and Federal Magistrates. It was also important to solicit inputs and data from other agencies involved in recreation for comparative purposes. This sample of non-Corps recreation systems included several other Federal agencies, and a number of state, city, county, and regional park and recreation systems throughout the county. A complete listing of agencies personally contacted by PRC/PMS staff is included in Appendix A.

### C. Questionnaire Construction

Specific questionnaires were developed by PRC/PMS to assist the staff in conducting field interviews and to insure maximum uniformity of pertinent information collected. Separate questionnaires were constructed for personal interviews with: (1) Corps of Engineers Divisions, Districts, and lakes; (2) state and local law enforcement; (3) Federal magistrates and local judges; and (4) park and recreation agencies.



FIGURE 4-C

Geographic Presentation of the Sample of Corps Lakes To  
Be Visited by PRC/PMS Project Staff

| GEOGRAPHIC<br>LOCATION | OVER 1 MILLION ATTENDANCE                          |                                 | LESS THAN 1 MILLION ATTENDANCE |                  |
|------------------------|----------------------------------------------------|---------------------------------|--------------------------------|------------------|
|                        | URBAN                                              | RURAL                           | URBAN                          | RURAL            |
| MIDWEST                |                                                    | Oahe Dam<br>Pomme de Terre Lake | Red Rock Dam                   |                  |
| SOUTHWEST              | Grapevine Lake                                     | Lake Texarkana                  |                                |                  |
| NORTHEAST              |                                                    | Shenango River<br>Lake          |                                | Grayson Lake     |
| SOUTHEAST              | J. Percy Priest<br>Reservoir<br>Lake Sidney Lanier | DeGray Lake                     |                                |                  |
| WEST                   |                                                    | Isabella Lake                   |                                | Green Peter Lake |
| NEW ENGLAND            |                                                    |                                 | Hop Brook Lake                 |                  |

(Source: PRC/PMS)

In addition to the field interview questionnaires, a self-report questionnaire was developed to be mailed to each Corps of Engineers lake manager, to increase the data base for analysis of the problems. A copy of this questionnaire is included in Appendix B.

The self-report questionnaire was pre-tested at four Corps lakes and OCE to observe any misinterpretation in the wording of the questions or any problems in obtaining the information requested. As a result of the pretest, PRC/PMS adjusted the self-report questionnaire accordingly and OCE mailed a copy to each District office with instructions to disseminate the questionnaires to each lake manager.

#### D. Field Visits

The site selection plan discussed in section B was put into action after PRC/PMS assembled the staff for a day of orientation and training. The purpose of this session was to instruct the staff on administering the questionnaires and to anticipate and minimize any problems which might be encountered.

The field visits to the Corps sites and other recreation agencies were, for the most part, conducted by a team consisting of a criminal justice-public safety specialist and a recreation-resource management specialist. Strong efforts in this phase of the project made it possible for the PRC/PMS teams to personally interview over 200 individuals in less than 30 days.

In several cases it was possible for the staff to visit other Corps lakes, law enforcement, and recreation agencies within driving distance of the original sample.\* Thus Appendix A, which lists all the agencies visited, includes several Corps lakes and other agencies that were not originally selected.

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\*The additional Corps lake visits included Lake of the Pines, John Kerr Reservoir, Milford Lake and Philpott Lake.

Upon completion of the field visits, the PRC/PMS teams submitted narratives detailing their observations and findings as well as the data and information collected in the questionnaires.

E. Collection of Available Data

The PRC/PMS project team received excellent cooperation from the Corps personnel in OCE which provided PRC/PMS with all available data from their computer banks. This data, collected by OCE for management objectives, was beneficial in developing a clear concept of the existing conditions at the lakes.

F. Literature Review

A detailed literature search was conducted during the course of the project to catalogue all information revealed in journal and newspaper articles, texts, books, other field projects, studies, and background information and annual reports of other recreation systems.

Sources including the National Criminal Justice Reference Service, National Recreation and Park Association, Department of Justice Library, and the National Institute of Law Enforcement and Criminal Justice were contacted in order to obtain further documentation of related law enforcement and recreation experiences.

In addition to the literature search, PRC/PMS reviewed relevant legislation in order to pinpoint the legal directives and obligations of the Corps of Engineers in the field of recreation and to determine the presence or absence of legal barriers which would prevent the establishment of any recommended law enforcement standards or policies.

## Chapter 5

### ANALYSIS OF THE DATA

#### A. Compiling the Data

During this stage of the study, all of the information and data collected from the field interviews, questionnaires, and available data from all sources was compiled by PRC/PMS. Due to the bulk of data, a central filing system was established for retrieving pertinent segments of the data.

The self-report field questionnaires were keypunched and tabulated for computer operations. The program package used for analysis was CROSSTABS.\* CROSSTABS is a statistical/retrieval reporting system which automatically provides effective and efficient methods in which to compute the cross-tabulations of multivariate data. This software package enabled the researchers to analyze complex variables according to weighted frequencies. The computer program provided a comprehensive tabulation of all the information.

The information compiled during the Corps lake interviews was extracted for comparison with the data received from other law enforcement and recreation agencies.

#### B. Methods of Analysis

As previously described, CROSSTABS was used to convert the data in the self-report questionnaires into readable tables. This served to enhance the analysis. A cut-off point for receiving the self-report

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\*Copyright by Cambridge Computer Associates, Inc.

questionnaires from the field had to be established due to the prompt time frame of the study. A total of 238 self-report questionnaires were received representing a 69 percent reporting from the lakes. This sample size was large enough to be representative.

In analyzing the data, it became apparent that there were acute differences between many of the lakes, while there were also vast similarities. On further examination it became clear that the data lent itself to major divisions according to certain characteristics of the lakes. For ease of comparison and analysis, four classes were developed, and the Corps lakes were divided into these classes. The classes consist of the following:

Class A Lakes---moderate to extensive Corps development for recreation; moderate to heavy attendance; large land area; multiple recreation use; generally staffed with more than one permanent ranger.

Class B Lakes---minimal Corps development for recreation use; light to moderate attendance; small land area; primarily day use; generally little or no permanent ranger staff.

Class C Lakes---no Corps development for recreation; all land area has been leased for state or local recreation development or deeded to other Federal agencies.

Class D Lakes---no Corps development for recreation; primarily consist of river pools, locks and dam sites; principal attendance is for sightseeing.

Figure 5-A reveals the number of lakes within each class. It is significant to note that over 80 percent of the PRC/PMS field visits were to class A lakes which accounted for over 80 percent of the Corps annual attendance.

FIGURE 5-A  
CORPS OF ENGINEERS LAKES  
SEPARATED INTO CLASSES

| CLASS OF LAKE | NUMBER OF LAKES | ATTENDANCE  |
|---------------|-----------------|-------------|
| A             | 128             | 236,381,900 |
| B             | 83              | 26,151,500  |
| C             | 52              | 59,443,600  |
| D             | 75              |             |
| TOTAL         | 338             | 321,977,000 |

(Source: PRC/PMS)

Reassessing the questionnaire returns, it should be noted that 121 or 95 percent of the A lakes were represented as well as 71 or 86 percent of the B lakes.

The geographic distribution of the Class A lakes is depicted in Figure 5-B. This figure shows that the preponderance of vast, heavily attended class A lakes are found in the lower midwest and south of the United States. Nine states in this area or 18 percent of the United States contain 70 percent of the class A lakes. Only 10 percent are located in the West. The class B lakes, depicted in Figure 5-C, also reveal an interesting distribution. Over 60 percent of the class B lakes are located in 7 states: 34 percent in New England (Massachusetts, Connecticut, Vermont, and New Hampshire); 14 percent in the North Pacific (Washington and Oregon); and 10 percent in Minnesota.

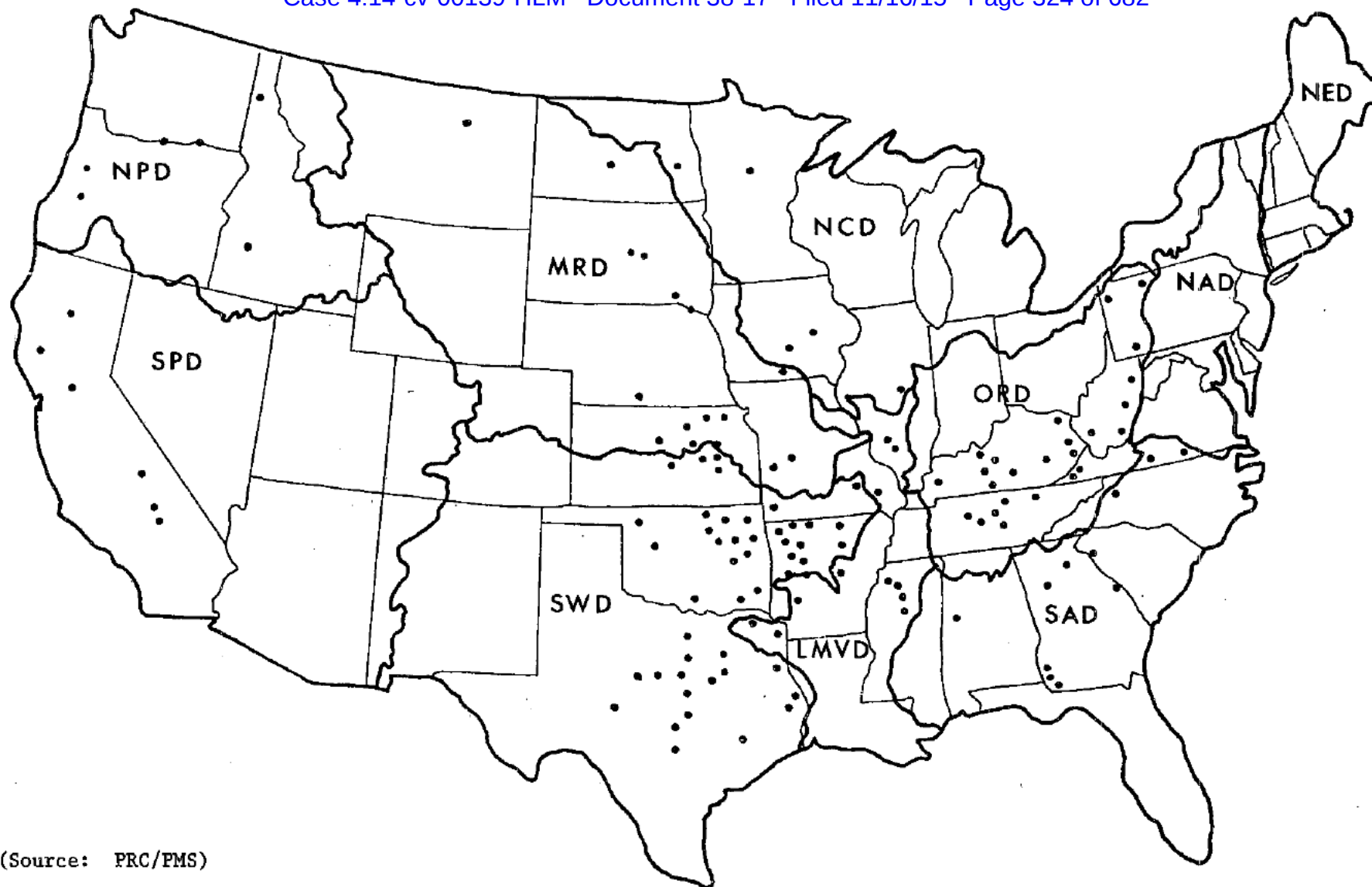
Because of the lack of recreation development at class C and class D lakes, these lakes did not warrant as much consideration as class A or class B lakes. Phone surveys and conferences with OCE confirmed that the problems at these lakes were very minimal concerning this study.

#### C. Findings

The multiplicity of raw data findings are available for presentation in two basic forms. The first presentation consists of a synopsis of the field visits by the project staff. This section contains encapsulated findings from interviews, discussions, and data obtained from Corps field personnel, local law enforcement agencies charged with providing security in park and recreation environments, park and recreation agencies, judicial officers, and others related to the objectives of the project.

The second presentation consists of the findings from the self-report questionnaire completed by the Corps of Engineers lake managers. These findings will be presented in the form of tables with answers corresponding to the questions in the questionnaire. The information cited

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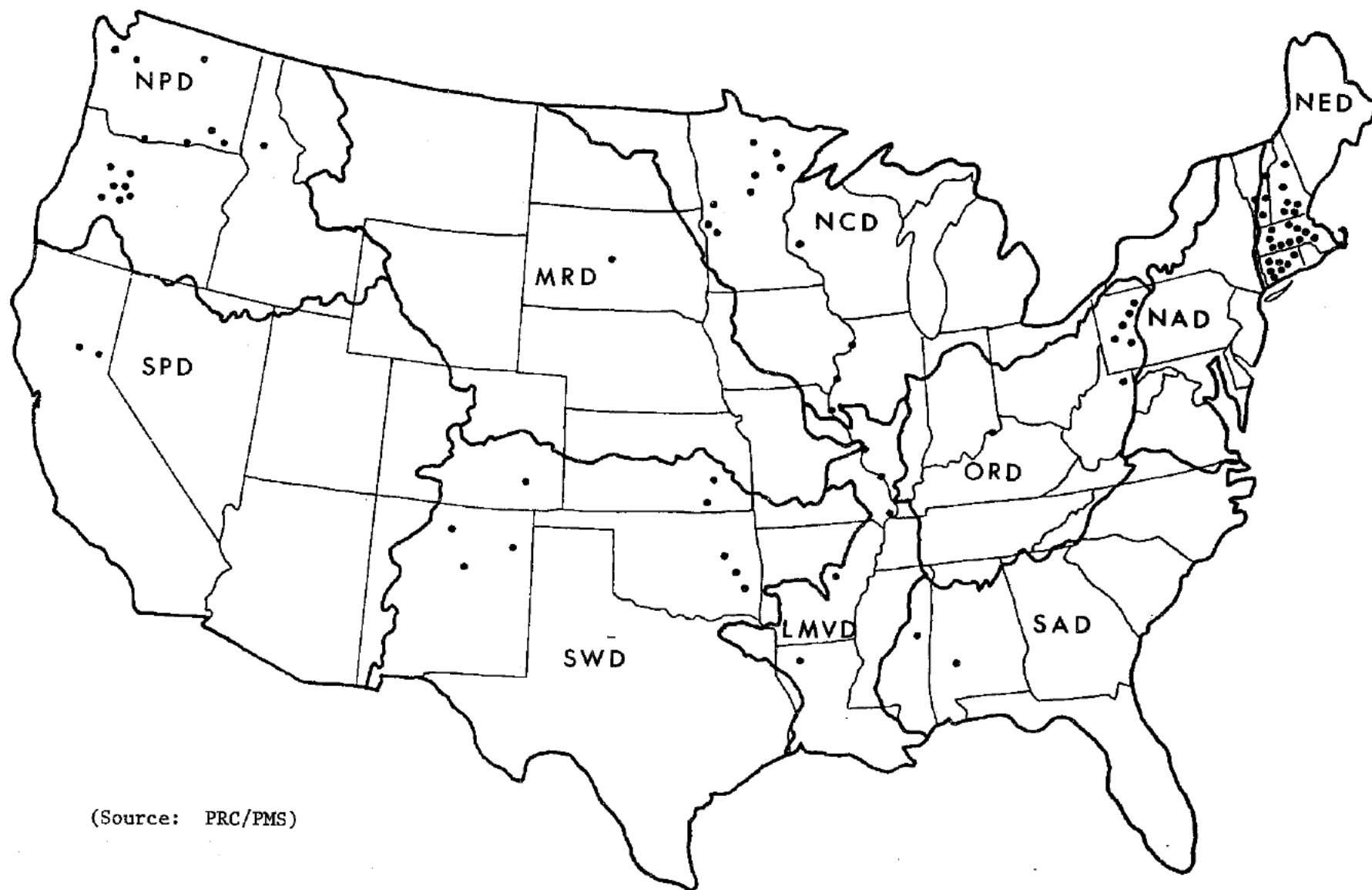


(Source: PRC/FMS)

Geographic Distribution of Corps of Engineers  
Class A Lakes within the United States

Figure 5-B





(Source: PRC/PMS)

Geographic Distribution of Corps of Engineers  
Class B Lakes within the United States

Figure 5-C

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and the table constructions are a result of the CROSSTABS computation. Both of these presentations are included in a separate volume.

Discussion of the findings and the various implications for Corps policy and operations will take place in later chapters.

D. Critique of the Methodology

While the methodology and analysis of the problem in this study is felt to be the best possible given the time constraints and deficiencies in the availability of the data, the most prominent problem facing the project was the diversity of the lakes. One of the primary objectives of the contract was to ensure that the information and impressions gathered in the field visits was reflective of the overall problems. To the degree possible, this objective was met.

Within this blanket statement, however, there lies two qualifying factors due to the decentralized operations of the Corps. One is the human factor; the other is the environment.

The human factor is represented by the variety of personalities and role characteristics performing functional duties under the Corps. The sheer numbers of personnel involved make this factor difficult to manage. A similar situation exists with the environment. The geography and breadth of the projects is overwhelming for physical coverage.

Considering the nature of the recreation experience, decentralized operations certainly introduce a pleasant element of reflecting more of the local ambience. In this pre-packaged society, this is a welcome relief. However, from an administrative point of view or the perspective of this study, this dispersion presents an unworkable variety of situations with which to deal.

Attempting to communicate through a pyramidal organization with a national base is a frustrating venture. Nonetheless, these caveats

should not serve to demean the significance of the findings and impending alternatives for action. These later discussions have been well-conceived and are felt to reflect the best possible recommendations for the Corps of Engineers to improve their visitor protection capabilities.

The main purpose of this critique is to supply the Corps with the necessary information to plan for these shortcomings in future studies.

## Chapter 6

### STATUS OF VISTOR PROTECTION AT CORPS LAKES

A primary element in the present study involves the assessment of the present level and nature of crime on the basis of available data, and in the context of the environmental and social realities of Corps projects. These data are essential in the analysis of the present status of vistor protection, the development of projections of potential crime rates and trends for the future, and the development and assessment of Corps law enforcement needs and requirements. Only an accurate picture of the present situation will allow for concise and responsive planning and decision-making at the national level, and provide the adequate framework upon which study conclusions and recommendations have been made and from which they can be interpreted.

#### A. Introduction

The analysis of any problem or situation on a national level carries with it the unavoidable potential that findings and conclusions may not reflect actual situations in specific areas or locales. The FBI's annual Uniform Crime Reports for example, which purports to be a barometer of crime on a national level, frequently do an injustice to jurisdictions which, for any number of reasons, do not follow national or even regional patterns. This potential situation was recognized during the initial stages of the present study and a comprehensive sampling methodology was applied during the initial stages to insure that survey findings could be truly representative of the Corps lakes. While variances will still exist in some cases, it is felt that the following data is as representative of the Corps national situation as is possible given the general parameters of this study.

In any event, attempts to impose a national interpretation on the "adequacy" of law enforcement at Corps projects will have to utilize normative standards which may not always be entirely applicable to various divisions, districts or projects. What, for example, can one say is an "acceptable" level of law enforcement and visitor protection, and what should one reasonably expect from the Corps? This subject is in fact addressed in the section of this study relating to "Standards for Visitor Protection." In the present discussion one must ask "What is, or can be expected as a reasonable level of crime and when does that level constitute a real and immediate problem?" Of course, any level of crime is unwanted. But, in the context of funding priorities and resource availabilities, needs must be weighed, priorities assigned, and remedial action applied on that basis. As in the previous example, normative judgments may not appear appropriate to various sites or projects. For example, in some regions where crime is less apparent and less "accepted," a modicum of criminal activity can be amplified or overstated in terms of apparent impact and significance. Conversely, where criminal acts are most frequent and more visible, the level of public tolerance is increased and criminal activity more "accepted" as a fact of life. In these situations, individuals involved may underestimate crime and its impact. As a consequence, some normative standard must be utilized rather than local impressions or reactions in order to gain a clear nationwide perspective.

The development of a reasonably accurate "yardstick" for measuring the occurrence and seriousness of crime in Corps projects is a highly difficult task; however, this chapter will attempt to develop this conceptual framework in which such judgment can be made. In this effort, the chapter is divided into four distinct sections:

- Section I draws upon the available data of related experiences with crime in the United States and other recreation environments.
- Section II describes the environment or climate in which law enforcement services are organized and applied.
- Section III provides specific data relating to the level of crime and incidents at Corps lakes.

- Section IV forms summary findings based on the data revealed in the foregoing contexts.

SECTION I  
ANALOGOUS CRIME DATA AND SITUATIONS

A. National Crime Trends

While it is not implied that a direct correlation exists between crime statistics on a national basis and crime specific to Corps projects throughout the United States, the crime "picture" for the nation is a reasonable starting point for the Corps analysis.

Reference to Table 6-1 provides an overview of crime in 1972 as reported to law enforcement agencies in various regions and areas throughout the United States. Crime indexes noted in this diagram are based upon nearly 6 million index crimes reported during the year. As can be noted, the crimes used as index crimes are those which can be regarded as the most frequently reported serious crimes. As a consequence, since these offenses are most consistently reported, they are best for computing crime trends and rates.

Table 6-1 provides some insight into the general volume, nature and distribution of serious crime in the United States. An overview of this data warrants some generalized findings to include that, on a per capita basis:

- Crime is at a higher rate in Western states and in the larger cities with more than a quarter of a million population.
- Northeastern states are more frequently areas of violent crime, while property crime has a higher rate in Western states.
- Cities maintain about seven times the rate of violent crimes as do rural areas and more than four times the rate of property crimes.

Region

Area

|                          | North<br>Eastern<br>States | North<br>Central<br>States | Southern<br>States | Western<br>States | Cities<br>Over<br>250,000 | Suburban | Rural  | Total<br>United<br>States |
|--------------------------|----------------------------|----------------------------|--------------------|-------------------|---------------------------|----------|--------|---------------------------|
| Total                    | 2840.6                     | 2480.7                     | 2462.7             | 4030.3            | 4947.9                    | 2363.6   | 1084.4 | 2829.5                    |
| Violent                  | 449.8                      | 334.6                      | 391.4              | 438.0             | 998.6                     | 221.7    | 143.6  | 397.7                     |
| Property                 | 2390.9                     | 2146.1                     | 2071.3             | 3592.3            | 3949.3                    | 2141.9   | 940.8  | 2431.8                    |
| Murder                   | 7.3                        | 6.8                        | 12.6               | 7.7               | 19.7                      | 4.6      | 7.4    | 8.9                       |
| Forcible Rape            | 17.1                       | 20.2                       | 21.6               | 34.1              | 47.1                      | 17.1     | 11.2   | 22.3                      |
| Robbery                  | 263.5                      | 165.2                      | 129.9              | 177.6             | 578.8                     | 72.3     | 16.1   | 179.9                     |
| Aggravated Assault       | 161.9                      | 142.3                      | 227.2              | 218.6             | 353.0                     | 127.8    | 109.0  | 186.6                     |
| Burglary                 | 1074.6                     | 954.7                      | 1005.8             | 1687.2            | 1877.5                    | 963.1    | 507.5  | 1126.1                    |
| Larceny \$50.00 and over | 775.2                      | 808.4                      | 770.9              | 1349.8            | 1104.6                    | 890.5    | 363.6  | 882.6                     |
| Auto Theft               | 541.0                      | 383.1                      | 294.6              | 555.3             | 967.2                     | 288.3    | 69.7   | 423.1                     |

(Source: FBI-UCR's)



- Overall, cities account for over twice the rate of serious crimes than that of suburban areas, and over four times the rate of rural areas.
- Crime rates, particularly property crimes are lowest in Southern states although these states maintain a high rate of violent crime.
- Burglary and grand larceny are the most frequent crimes on a national basis and maintain the highest rates in cities and Western states.

Crime rates, of course, do not reflect gross numbers of crimes, but they do provide a convenient and useful measure by which jurisdictions can gauge their crime problem. It seems apparent, for example, that crime problems are most predominant in cities and, in largest measure, reflect excessive burglary and larceny rates. The maintenance of uniform crime reports by a majority of the nation's law enforcement agencies allows each jurisdiction to weigh its reported crime against national, regional, state and local figures.

To a certain extent the Corps can utilize these data to gauge the relative distribution of crime in recreation projects. One would expect, for instance, that projects closest to urban areas would maintain higher overall rates of crime than those in rural areas; that incidence would be highest in the Western and Northeastern states; and felonies would primarily involve burglary and larceny offenses.

However, it cannot and should not be assumed that "crime", as conventionally portrayed in the Uniform Crime Reports, is readily transferable to the environment of the recreation site. Criminal opportunities and victim vulnerabilities change dramatically by virtue of Corps project design, types and volume of visitors attracted, project location, and numerous other factors. As a result, national crime figures are best viewed and utilized on a generic basis and as general parameters for the interpretation of more specific Corps data.

One additional point involving unreported crime, which also applies to Corps area crime reporting, should be noted in relationship to the present discussion of national crime statistics. It has been long recognized that reported crime does not accurately reflect the actual number of crimes committed. A number of techniques have been employed to more accurately pinpoint the actual level of criminality, the most popular and accurate of which are surveys of victimization. The first comprehensive survey of this kind aimed at a national audience was recently completed by means of the National Crime Panel under sponsorship of the Law Enforcement Assistance Administration.

Covering victimizations during 1972, the survey indicates that the total number of offenses reported in the five surveyed cities represent only about half of the actual crimes committed. Moreover, the number of larcenies, both personal and household, was some four times greater than the number which had been reported to the police. Larceny without personal contact was the most prevalent type of crime in the sample cities. It is apparent on the face of these data that crime is much more widespread than heretofore determined. For the purposes of the present study, it is important to recognize these tendencies not to report crime, especially those crimes such as larceny and robbery. In addition, it becomes clear through survey findings that the causes of unreported crime are intimately related to victim perceptions of himself, the crime, and the role and capabilities of the police. This point seems extremely important in interpreting the crime at Corps projects, to be discussed later. Specifically, the most common reason for failing to report crimes was the feeling that nothing could be done and/or that there was a lack of proof. In either event the ease of reporting, the perceived competence and interest of local authorities, and the local authorities capacity to respond all play a part in whether or not crime is reported.

#### B. Recreation Crime Data

From the national perspective of reported crime, and in the context of reporting problems, the Corps crime situation at recreation sites will

assume an added perspective. What is most crucially needed in these crime analyses yet, so far generally unavailable, is more precise data relating to criminal activity in parks, forests, recreational and public use lands generally. Due to the relatively unique nature of recreation areas in relation to their environs, crime data specific to the nation's recreation experience is most appropriate in attempts to formulate some baseline yardstick. Yet relatively few sources exist in these areas, or the level of crime which exists.

One of the few studies aimed specifically at these areas was performed by Gibbons<sup>2</sup>. He studied three contiguous rural counties in Oregon and found serious crime to be an infrequent occurrence while the volume of petty law violations was large.

#### Crime in Urban Park Areas:

One study performed for the U.S. Department of Housing and Urban Development<sup>3</sup> does shed some light on the incidence of crime in parks and recreation areas. In particular, the study reveals that park visitors, as is the case in overall national crime statistics, most frequently are subject to robberies and larcenies among all other index crimes. This is most frequently the case where recreation areas are developed. Their findings indicate that:

"The amount of reported Index crime in parks is substantially below popularly assumed levels. Indeed, on the basis of reported crime, parks appear to be much safer than their surrounding areas in general."

Further they state,:

"Nevertheless, it is safe to assume that more crime occurs than is reported, especially in minor crime categories. Since most park departments do not report most of their vandalism, the amount of property crime occurring in parks is substantially greater than shown in police records. There is nothing in the data, however, to indicate that the proportionate relationships shown in this report would be significantly changed, even if all crime of all types were known."

In addition, the findings note that most of the problems in city park areas tended to concentrate in one or two park locations. Unreported crime is again a large problem with justifications generally taking the same form as those found on the national level; for example, too much trouble to report, incident too minor, etc. In any event, law enforcement officers maintain that crime prevention is extremely difficult in parks primarily due to problems of poor visibility.

Another study cited in the HUD report again suggests that actual crime in parks and recreational areas is below that which is commonly assumed.

The Seattle Study<sup>4</sup>, which also dealt with index crimes, addressed reported crime in 34 of Seattle's 200 parks in comparison to discrete geographic areas. In concert with findings of the HUD study and expectations of surveyed police, crime rates were found to be very low in comparison with the immediate surroundings. In terms of violent crime for example, in no case did park occurrences exceed 6 percent of that in the contiguous area, and dropped as low as .39 of 1 percent in one park. These findings become even more glaring when it is remembered that these violent crimes are the most frequently reported.

One additional finding of the HUD study should be recognized. Table 6-2 (HUD Report p.37) below provides data relative to the incidence of crime in 3 categories of parks and in relationship to area served.

While the data reconfirms previous findings that park crime is less than expected through police statistics, it also suggests that as park size and resources increase, so does the occurrence of crime. It also suggests that park crime is more a function of crimes committed outdoors than overall uniform crime statistics. These findings lead one to assume that crime in Corps recreation areas, particularly near the more populous areas, can be expected to reflect a more severe picture than that noted in the above findings. Data from the more closely akin U.S.

TABLE 6-2

Index Crimes in Parks as Proportion to Total Index Crime in  
Service Area and Street Crime of Service Area, by Category  
of Parks.\*

|                               | Total Index<br>Crimes in<br>Service Area | Index Crimes<br>in Street of<br>Service Area | Index Crimes<br>in<br>Parks | Park Crime as %<br>of Service Area<br>Crimes | Park Crime as %<br>of all Outdoor Crime<br>in Service Area |
|-------------------------------|------------------------------------------|----------------------------------------------|-----------------------------|----------------------------------------------|------------------------------------------------------------|
| Sub-Neighborhood Parks<br>(5) | 1,114                                    | 412                                          | 2                           | 0.2%                                         | 0.5%                                                       |
| Neighborhood Parks<br>(10)    | 4,386                                    | 1,411                                        | 25                          | 0.6%                                         | 1.7%                                                       |
| Community Parks<br>(5)        | 2,358                                    | 810                                          | 81                          | 3.4%                                         | 9.1%                                                       |
| TOTALS                        | 7,858                                    | 2,633                                        | 108                         | 1.4%                                         | 3.9%                                                       |

\* Definition of Service Area: the neighborhood surrounding and adjacent to parks, inside and outside including parks themselves.

(Source: H.L. Malt Associates)

Forest Service, National Park Service, and the Bureau of Land Management will also be discussed to test this notion.

#### U.S. Forest Service

Under the Department of Agriculture, the U.S. Forest Service (USFS) approach to law enforcement for the most part has relied on state and local existing law enforcement to provide services. As a result of the Cooperative Law Enforcement Program, initiated by Congress (P.L. 92-82) in 1971, the U.S. Forest Service contracts with state and local law enforcement to provide specific visitor protection services in many of the U.S. forests.

In order to gain a more complete picture of law and regulation violations in National Forests, the Forest Service sampled violations of 130 Districts distributed throughout all Regions, as well as from Experimental Forest or Range Units, Forest Supervisor's Offices, and all Regional offices. While the law enforcement problems experienced by the USFS parallel those of the Corps to a reasonable degree, it is, of course, recognized that the Forest Service geographic responsibilities are both larger and somewhat different than those of the Corps. Boating related incidents, for example, are less frequently a problem for the Forest Service than the Corps, while forest related matters, such as fire and timber pilferage, are more Forest Service oriented. Nevertheless, these data are useful in a number of respects including the priorities which they implicitly carry for the various law enforcement problems.

For purposes of this study, a violation was defined as an incident involving infraction of law or regulation, including those connected with contracts and permits. Reference to the complete list in Appendix D reveals the following observations of interest to the Corps:

- Violations in developed recreation sites and areas account for the greatest single category of offenses and over half of all violations. In particular, it reveals that sanitation and littering are the single largest problem in terms of volume facing Forest Service rangers.

- Problems relating to vehicles in recreation areas including speeding, parking, safety and disruption account for the second largest recreation problem; although various violations relating to personal conduct, abusive behavior, and destruction of property or resources seem to be as great, if not greater, depending upon interpretation of terms.
- Although not portrayed in the Appendix, it was found that the majority of State law violations involving crimes against persons or property occurred in public recreation areas. A large majority (3,690) involved theft or damage of private property, while some 366 incidents involved assault or intimidations of private citizens. An additional 390 narcotics violations occurred in the public use areas.
- The findings reconfirm the significance of littering, sanitation in regard to refuse at camp locations, and water pollution.
- Five related violations account for approximately 15 percent of all violations.
- Property protection offenses of various types, to include defacement or destruction of signs and other utilities, account for only about 3 percent of reported violations. Of about equal magnitude are problems related to timber use and abuse, of obvious interest to the USFS.

It seems apparent that the USFS's major problem in terms of gross violations involves littering and sanitation related to refuse disposal. Vehicle control and usage in National Forests are an additional primary concern as is regulation of personal conduct and behavior in group recreation areas. Of the estimated 1.2 million offenses, however, about 4,446 involved violation of state laws. It should also be added that, in addition to these, there were some 714 cases of assault or intimidation of Forest Officers during 1969. ++

In fiscal year 1973-1974, over \$3.5 million was spent to subsidize state/local law enforcement services. As well, the Forest Service still spends several million dollars on their own services and manpower to protect visitors and natural resources. Costs due to vandalism resulted in more than \$2 million in reported losses. Projections from this data, applying to all National Forests, result in estimated losses of nearly \$6.8 million for 1969 alone. From the perspective of monetary loss, vandalism offenses carry a

a significant impact aside from their gross volume.

Since the Forest Service's Cooperative Law Enforcement program has only been in existence a few years, there has not been a thorough evaluation conducted to measure the effectiveness of the program. One point is evident, however, that the program was implemented and is maintained with relatively few administrative or management problems in terms of contracting arrangements, conditions of service, and the like.

#### National Park Service

The National Park Service (NPS), under the Department of Interior, maintains its own law enforcement contingent, trained, armed and responsible for enforcement of state and federal laws and ordinances on Park Service lands. This approach has evolved because the Park Service frequently maintains "exclusive" jurisdiction over the lands as opposed to the Corps "proprietary" jurisdiction. In addition to their law enforcement duties, however, Park Rangers are responsible for traffic control, resource management, inspection of facilities, visitor protection, and other duties. Also under the Interior Department are the National Capitol Park Police, which are assigned principally to the Washington, D.C. area capital parks and monuments. This contingent of fully-authorized police is separate from the Park Rangers.

Table 6-3 provides overall five-year summary statistics for reported Part I Index crimes for all park service areas and the national capitol parks. It is immediately obvious that the National Park Service must contend with a great many more serious crimes than have been noted in other park and recreation contexts. To a large degree, the added volume of offenses may be due to the nature of National Parks. In a great many cases National Parks resemble urban areas with shopping, entertainment and living accommodations. The concomitant law enforcement problems associated with sophisticated recreation areas of this type are similar proportionately to other developed urban and suburban



TABLE 6-3

NATIONAL PARK SERVICE  
SUMMARY OF ACTUAL PART I OFFENSES

| CALENDAR YEAR |       | HOMICIDE | RAPE | ROBBERY | ASSAULT | BURGLARY | GRAND LARCENY | PETIT LARCENY | AUTO THEFT | TOTAL |
|---------------|-------|----------|------|---------|---------|----------|---------------|---------------|------------|-------|
| 1973          | NPS   | 6        | 15   | 17      | 121     | 718      | 1718          | 2574          | 86         | 5255  |
|               | NCP   | 3        | 38   | 256     | 155     | 108      | 620           | 90            | 47         | 1317  |
|               | TOTAL | 9        | 53   | 273     | 276     | 826      | 2338          | 2664          | 133        | 6572  |
| 1972          | NPS   | 8        | 10   | 18      | 125     | 566      | 1315          | 2264          | 86         | 4392  |
|               | NCP   | 1        | 45   | 161     | 138     | 68       | 150           | 352           | 31         | 946   |
|               | TOTAL | 9        | 55   | 179     | 263     | 634      | 1465          | 2616          | 117        | 5338  |
| 1971          | NPS   | 7        | 21   | 22      | 129     | 640      | 1288          | 2191          | 90         | 4388  |
|               | NCP   | 2        | 40   | 172     | 104     | 75       | 143           | 430           | 51         | 1017  |
|               | TOTAL | 9        | 61   | 194     | 233     | 715      | 1431          | 2621          | 141        | 5405  |
| 1970          | NPS   | 5        | 8    | 13      | 92      | 783      | 1437          | 2138          | 94         | 4570  |
|               | NCP   | 3        | 26   | 175     | 166     | 113      | 149           | 635           | 67         | 1334  |
|               | TOTAL | 8        | 34   | 188     | 258     | 896      | 1586          | 2773          | 161        | 5904  |
| 1969          | NPS   | 11       | 10   | 12      | 78      | 400      | 1105          | 2420          | 81         | 4117  |
|               | NCP   | 3        | 46   | 191     | 156     | 112      | 176           | 630           | 54         | 1368  |
|               | TOTAL | 14       | 56   | 203     | 234     | 512      | 1281          | 3050          | 135        | 5485  |

NPS - ALL PARK SERVICE AREAS EXCEPT NATIONAL CAPITAL PARKS

NCP - NATIONAL CAPITAL PARKS

(Source: NPS Annual Report)

communities. But to an even greater measure, by maintaining constant surveillance by a single police force, it is undoubtedly the case that more offenses are being observed, reported, formally recorded, and prosecuted than is the case in other recreation areas. Therefore, high crime statistics are a product of these factors as well as of actual greater numbers of offenses being committed.

Similar to other findings and crime statistics previously noted, Table 6-3 reveals that burglary and larceny account for the highest percentage of serious crime. In 1973 these crimes accounted for over 93 percent of all reported offenses at National Parks and over 60 percent of those at National Capitol Parks. In Yosemite National Park alone, there were 926 Part I crimes in 1973. Of these, 879, or nearly 70 percent, were larcenies and 25 percent burglaries, a rather representative example of servicewide statistics. In the same instance, the Park Service charged individuals with the following less serious Part II crimes:

- 132 Narcotic/Drug Law Violations
- 190 Liquor Law Violations
- 231 Disorderly Conduct
- 351 Moving Vehicle Violations
- 303 Parking Offenses
- 216 Other Parking Regulations.

Among Part II crimes, NPS devotes a great deal of time, resources and energy to traffic law enforcement as servicewide data in Table 6-4 reveals. The large number of citations issued and traffic accidents reported reflects the immense amount of vehicle usage in the National Parks.

The heavy volume of offense statistics places the National Park Service at what might be considered the height of the law enforcement need and service continuum for park areas.

TABLE 6-4

GENERAL SUMMARY OF TRAFFIC  
ACCIDENTS AND ENFORCEMENT  
U.S. PARK POLICE SERVICEWIDE

|                                                                           | <u>1972</u> | <u>1973</u> |
|---------------------------------------------------------------------------|-------------|-------------|
| A. Total number reported motor vehicle traffic accidents                  | 7,290       | 7,385       |
| B. Number of fatal accidents                                              | 65          | 52          |
| C. Number of non-fatal injury accidents                                   | 1,441       | 1,438       |
| D. Number property damage accidents only                                  | 5,441       | 5,895       |
| E. Number drivers involved                                                | 11,517      | 11,636      |
| F. Number fatal injuries to persons                                       | 76          | 60          |
| G. Number non-fatal injuries to persons                                   | 2,186       | 2,310       |
| H. Total amount of property damage incurred (\$)                          | 2,384,380   | 3,894,170   |
| I. Total number motor vehicle-pedestrian accidents                        | 62          | 49          |
| J. Number traffic accidents investigated by NPS officers at accident site | 6,784       | 5,834       |
| K. Number traffic accidents resulting in citation or arrest               | 3,112       | 2,844       |
| L. Number persons cited or arrested in connection with traffic accidents  | 3,121       | 3,364       |
| M. Number persons convicted for traffic resulting in collision or upset   | 396         | 167         |
| N. Number known hit-run accidents                                         | 696         | 533         |
| O. Number of citations or arrests for hazardous traffic violations        | 41,696      | 39,319      |
| P. Number convictions for hazardous traffic law violations                |             |             |
| Q. Number of written warnings issued for motor-vehicle violations         | 26,312      | 32,753      |
| R. Number of boating violations                                           | 1,771       | 1,227       |
| S. Number of boating accidents                                            | 403         | 310         |
| T. Total property damage resulting from boating accidents                 | 177,779     | 90,337      |

Bureau of Land Management

One final example of law enforcement needs and availabilities in the sphere of parks and recreation can be found in experiences of the Bureau of Land Management (BLM). Also under the Department of Interior the Bureau manages some 470 million acres of public domain nationwide. A law enforcement study conducted for BLM in the State of California<sup>5</sup> provides some corollates with the law enforcement situation at other recreation areas.

In California, BLM administers some 12 million acres of public land which is valuable in economic, archeological and other terms, in addition to its recreational uses. BLM's present capability to enforce laws in these areas is both legislatively and organizationally limited, and state and local law enforcement authorities are limited by virtue of manpower and finances to lend assistance to BLM.

The law enforcement study for BLM in California was conducted in response to high level and "uncontrolled use, abuse, vandalism and thefts" on BLM lands. Unauthorized use of off-road vehicles had, in and of itself, been recognized as a serious ecological and public use management problem. Deaths and serious accidents have resulted from the lack of management and surveillance and little is known of the happenings in remote or sparsely used areas.

Utilizing crime projections from other areas, the study estimated that approximately 490 major crimes (such as, larceny, aggravated assaults and robberies) and 1,280 lesser offenses occurred on BLM lands in 1968 during 5 million visitor days' use. It seems evident on the basis of the study report that BLM's inability to control public use of its lands has resulted in a significant degree of property and resource damage, littering, pilferage and numerous minor violations, in addition to the more serious crimes, many of which go undetected due to reporting problems.

Some of the BLM study findings, which are relevant for this report, are as follows:

- The limited authority of personnel to enforce rules and regulations aimed at controlling behavior, conduct and protecting natural resources and federal property.
- Littering, vandalism, and rowdiness were among the most widespread and most predominant offenses.
- The non-availability of organizational and managerial structures for the analysis, planning and implementation of responsive law enforcement/visitor protection services.
- The inability to adequately coordinate, communicate with, and utilize existing law enforcement agencies and services for the solution of existing problems.
- The failure to explain and communicate the roles and objectives of recreation and visitor management with that of the overall organizational goal and to develop precise policy statements relative to the compatible achievement of each.

#### C. Summary of Related Crime Experiences

The foregoing data provides a general impression of the volume, nature, and distribution of crime in the United States and within the context of parks and recreation areas. It is apparent however, that extensive data regarding crime in the recreation context is rather scarce. Only in the case of the National Park Service are concise reporting and recording procedures maintained and statistics subsequently available.

The nature of the crime problems discussed provide some commonalities even though the agencies vary significantly with regard to property under management, visitation levels, and services provided. Among the most apparent similarities between these experiences are the following:

- On both a national level and in the recreation context, larceny is the primary law enforcement problem involving serious reported crime.
- A great deal of crime is going unreported among serious crime but even more among Part II or the less serious crimes. While findings conflict to a certain degree, it is indicated that

actual crime levels are well above that level which is reported, even where formal reporting practices exist.

- Less serious crime is predominately related to vandalism, traffic, and ecological disturbances, such as the damage caused by off-road vehicles.

## SECTION II

### ENVIRONMENT OF CORPS LAW ENFORCEMENT AND VISITOR PROTECTION

The previous section of this chapter has attempted to lay the ground-work for the discussion of law enforcement and visitor protection at Corps lakes. The objectives of this section will be to portray the over-all environment and context in which law enforcement and visitor protection is being addressed at Corps lakes and to lay the factual and conceptual framework upon which later discussion of crime and incident statistics will be made.

Data utilized in this discussion was compiled from self-report questionnaires completed by 238 Corps lake managers and by in-depth field study of 18 projects selected on a structured sampling basis, as detailed in the foregoing methodological component of this report.

As explained in Chapter 5, to assist in analysis, Corps lake were classified into four major classes. Classes C and D are those lakes which are not geared in any significant manner to recreation. Lakes of the A and B class are primary management concerns of the Corps; are geared to recreation; and have the vast majority of personnel, visitor attendance, and visitor protection problems. The present study is, of course, almost totally concerned with this latter group. The findings presented here are extremely representative of these two major classes as data is based on questionnaire returns from 94 percent of all class A lakes and 86 percent of all B lakes. Continued reference to Table 7.1 throughout the following section on Corps law enforcement will add a greater perspective to these findings relative to demographic classification, attendance levels, personnel availabilities and the like.

#### A. Characteristics of Corps Lake Projects

As data from previous discussion indicates, the physical environment in which law enforcement must operate has great bearing upon the level and quality of that service. As a general overview of the character of Corps lakes and reservoirs in terms of demographic setting and acreage, the chapter on analysis related that the largest proportion of lakes fall within the small to moderate-sized lakes in rural areas. However, these are less attended lakes. The largely attended lakes, twice as many of which are also rural, fall into the moderate to large sized category. With respect to shoreline, size, a great variability also exists. Nearly 12 percent, for example, have perimeters of less than one mile; 34 percent, less than 20 miles; 36 percent, between 20 and 100 miles; 22 percent, between 100 and 500 miles; and an additional 8 percent, between 500 and 2,500 miles.

The study team analyzed demographic and socioeconomic data of 11 of the field survey sample lakes and found no correlations with the incidence of crime. Table 6-5 provides a summary of some of these data in relationship to the selected Corps lakes.

Access to Corps Projects. The size of Corps lakes is about as varied as is the nature of their physical setting and surroundings. Surveys of Corps lakes throughout the country by PRC/PMS staff found several consistencies, however, associated with the geography and natural surroundings of the lakes which have bearing on visitor protection.

Access to Corps projects in general and lakes in particular is dependent primarily upon the terrain of the project area. Where foliage is sparse, as in the midwest for example, access is virtually unlimited. In other areas where trees and foliage are plentiful and dense, access can only be accomplished through off-road vehicles or by foot. Little is directly known of the number of violations which are occurring in these undeveloped and little used areas. There is little evidence that serious crime is being committed, rather, it is more the case that minor violations of



| Lake/Dam SMSA                                                                        | Wright<br>Patman<br>Texarkana | DeGray<br>Little Rock/<br>No. Little Rock | Grapevine<br>Dallas/Ft.<br>Worth | Hop Brook<br>New Haven/<br>Bridgeport | Lake Sidney<br>Lanier<br>Atlanta | J. Percy<br>Priest<br>Nashville | Green Peter<br>Eugene | Grayson<br>Huntington<br>West Virginia | Shenango<br>Youngstown/<br>Warren, Ohio | Red Rock<br>Des Moines | Isabella<br>Bakersfield |
|--------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|----------------------------------|---------------------------------------|----------------------------------|---------------------------------|-----------------------|----------------------------------------|-----------------------------------------|------------------------|-------------------------|
| Total Population,<br>SMSA plus adjacent<br>counties<br>(number non-SMSA<br>counties) | 237,723<br>(4)                | 359,791<br>(3)                            | 2,672,413<br>(13)                | 744,691<br>(0)                        | 1,491,808<br>(4)                 | 752,416<br>(11)                 | 285,272<br>(2)        | 279,526<br>(2)                         | 663,178<br>(1)                          | 312,453<br>(1)         |                         |
| SMSA <sup>1/</sup> population <sup>2/</sup><br>percent change<br>1960-1970           | 101,198                       | 323,296<br>18.9%                          | 2,318,036<br>(39%)               | 744,691<br>(13%)                      | 1,390,164<br>(36.7%)             | 541,108<br>(16.7%)              | 213,358<br>(31.0%)    | 253,743<br>(-0.4%)                     | 536,003<br>(5.3%)                       | 286,101<br>(7.4%)      | 329,162                 |
| Male <sup>2/</sup>                                                                   | 48,497                        | 155,475                                   | 1,123,800                        | 358,945                               | 670,018                          | 258,999                         | 105,882               | 121,607                                | 260,112                                 | 136,234                | 162,904                 |
| Female <sup>2/</sup>                                                                 | 52,701                        | 167,821                                   | 1,194,236                        | 385,746                               | 720,146                          | 282,109                         | 107,476               | 132,136                                | 275,891                                 | 149,867                | 166,254                 |
| White <sup>2/</sup>                                                                  | 78,640                        | 262,698                                   | 1,971,771                        | 669,997                               | 1,076,143                        | 443,422                         | 210,262               | 246,218                                | 483,796                                 | 272,983                | 300,315                 |
| Black                                                                                | 22,328                        | 59,770                                    | 329,695                          | 70,213                                | 310,632                          | 96,210                          | 743                   | 6,946                                  | 50,621                                  | 11,916                 | 18,637                  |
| Other                                                                                | 230                           | 828                                       | 16,570                           | 4,481                                 | 3,389                            | 1,476                           | 2,353                 | 379                                    | 1,586                                   | 1,202                  | 10,213                  |
| 0-15 years <sup>2/</sup>                                                             | 10,622                        | 33,991                                    | 233,076                          | 73,120                                | 156,385                          | 53,296                          | 20,990                | 24,655                                 | 53,382                                  | 30,181                 | 34,688                  |
| 6-10 years                                                                           | 9,942                         | 33,083                                    | 243,316                          | 70,288                                | 142,899                          | 52,941                          | 21,331                | 23,322                                 | 53,094                                  | 28,943                 | 37,081                  |
| 11-20 years                                                                          | 18,477                        | 59,082                                    | 433,724                          | 135,171                               | 261,027                          | 103,708                         | 44,273                | 48,203                                 | 105,365                                 | 54,194                 | 66,924                  |
| 21-61 years                                                                          | 47,458                        | 159,939                                   | 1,163,930                        | 373,768                               | 714,093                          | 270,177                         | 104,420               | 122,810                                | 261,569                                 | 138,129                | 156,303                 |
| 62 yrs. and over                                                                     | 14,689                        | 37,201                                    | 142,729                          | 92,344                                | 115,760                          | 60,986                          | 22,344                | 34,753                                 | 62,593                                  | 34,654                 | 33,534                  |
| Population<br>Density <sup>2/</sup><br>Sq. Mile <sup>2/</sup>                        |                               | 217                                       | 376                              | 1,700                                 | 805                              | 332                             | 47                    | 181                                    | 520                                     | 481                    | 40                      |
| Family Income Characteristics <sup>3/</sup>                                          |                               |                                           |                                  |                                       |                                  |                                 |                       |                                        |                                         |                        |                         |
| No. of Families                                                                      |                               | 84,303                                    | 598,813                          | 190,314                               | 354,130                          | 139,093                         | 54,741                | 67,411                                 | 138,119                                 | 72,677                 | 83,500                  |
| Under \$5,000                                                                        |                               | (24.8%)                                   | (16.2%)                          | (12.2%)                               | (16.2%)                          | (20.6%)                         | (18.2%)               | (27.5%)                                | (13.6%)                                 | (14.5%)                | (23.8%)                 |
| \$5,000-\$9,999                                                                      |                               | (37.2%)                                   | (31.8%)                          | (27.1%)                               | (29.3%)                          | (35.2%)                         | (37.2%)               | (37.7%)                                | (33.3%)                                 | (30.4%)                | (33.5%)                 |
| \$10,000-\$14,999                                                                    |                               | (23.8%)                                   | (29.4%)                          | (31.7%)                               | (28.4%)                          | (26.5%)                         | (27.9%)               | (23.3%)                                | (32.2%)                                 | (31.6%)                | (25.2%)                 |
| \$15,000 and over                                                                    |                               | (14.2%)                                   | (21.3%)                          | (29.0%)                               | (26.1%)                          | (17.7%)                         | (16.7%)               | (11.5%)                                | (20.9%)                                 | (23.5%)                | (17.5%)                 |
| Median Income                                                                        |                               |                                           |                                  |                                       |                                  |                                 |                       |                                        |                                         |                        |                         |
| 1959                                                                                 | \$ 4,892                      | \$ 5,777                                  | \$ 6,723                         | \$ 5,758                              | \$ 5,059                         | \$ 5,946                        | \$ 4,977              | \$ 6,210                               | \$ 6,464                                | \$ 5,933               |                         |
| 1969                                                                                 | 8,290                         | 10,305                                    | 11,458                           | 10,695                                | 9,187                            | 9,332                           | 7,973                 | 10,390                                 | 10,682                                  | 8,333                  |                         |
| Work Force - Total                                                                   | 144,000                       | 1,070,000                                 | n.a.                             | 704,000                               | 265,000                          | 91,000                          | 101,000               | 227,000                                | 149,000                                 | 132,000                |                         |
| Non-agricultural                                                                     | 124,000                       | 927,000                                   | n.a.                             | 614,000                               | 224,000                          | 70,000                          | 84,000                | 196,000                                | 131,000                                 | 90,000                 |                         |
| Crime Rate per<br>100,000 population                                                 | 3,777                         | 3,814                                     | 2,979                            | 3,568                                 | 3,481                            | 2,984                           | 1,846                 | 2,164                                  | 2,813                                   | 3,676                  |                         |
| Reservoir Attendance<br>Days, 1971                                                   | 2,600,000                     | 948,000                                   | 3,004,000                        | 273,000                               | 13,703,000                       | 4,031,000                       | 138,000               | 656,000                                | 1,097,000                               | 140,000                | 1,455,000               |
| Police (City)                                                                        |                               |                                           |                                  |                                       |                                  |                                 |                       |                                        |                                         |                        |                         |
| Patrolman Salary                                                                     | Texarkana                     | Little Rock                               | Dallas                           | Bridgeport                            | Atlanta                          | Nashville                       | Eugene                | Huntington                             | Youngstown                              | Des Moines             | Bakersfield             |
| Entrance 1970                                                                        | \$ 5,700                      | 6,456                                     | 6,900                            | 7,676                                 | 6,760                            | 5,970                           | 7,122                 | 5,844                                  | 7,186                                   | 7,507                  | 8,828                   |
| Maximum 1970                                                                         | \$ 6,600                      | 7,584                                     | 8,400                            | 9,005                                 | 8,320                            | 7,440                           | 9,780                 | 6,636                                  | 7,962                                   | 8,555                  | 10,488                  |
| Entrance 1973                                                                        | \$ 6,240                      | 7,272                                     | 8,664 <sup>4/</sup>              | 8,992                                 | 8,671                            | 7,200                           | 8,250                 | 7,464                                  | (n.a.)                                  | 8,884                  | 10,241                  |
| Total Police Ex-<br>penditures, 1970                                                 | \$ 573,000                    | 1,792,000                                 | 20,200,000                       | 4,742,000                             | 9,567,000                        | 5,360,000                       | 1,398,000             | 1,069,000                              | 3,199,000                               | 3,594,000              | 2,611,000               |

<sup>1/</sup> Lines 6-37, SMSA only.

<sup>2/</sup> 1970 data.

<sup>3/</sup> 1969 data.

<sup>4/</sup> Fort Worth

(Sources: Lines 2-38; U. S. Bureau of the Census: Line 31, Corps of Engineers; Lines 41-45 Municipal Yearbook.)

TABLE 6-5.

DEMOGRAPHIC AND SOCIOECONOMIC DATA AND SELECTED MUNICIPAL POLICE SALARY  
AND EXPENDITURE DATA FOR CORPS OF ENGINEER SITES IN INTERVIEW SAMPLE  
AND NEAR STANDARD METROPOLITAN STATISTICAL AREAS

HQ AR004629

Corps regulations, as well as vandalism, pilferage, destruction of natural resources, and rowdyism, are prevalent. Fire destruction has been uncommonly low and is primarily due to the close perimeter of the Federal boundaries to the shoreline. It is feared in many areas that these secluded havens are the scene of numerous youthful "drug parties" and illicit activities. While this is to some extent probably true, particularly among the urban and suburban projects, there is little evidence to support this general feeling. In any event, the point to be made is that control in the more remote areas is commonly non-existent because of the terrain and the lack of rangers to perform visual checks.

Compounding this problem is the large increase in development just outside the Federal line. With the increase in vacation homes, as well as permanent dwellings, these developments are adding significantly to the problems of control and access which project managers are facing. Frequently unauthorized roadways are cut to the lakes edge and others created simply by recurrent travel by off-road vehicles. One moderately sized rural lake in Missouri, for example, has found over 165 known access roads, the bulk of which were unauthorized.

Encroachment is a common problem along the perimeters of these subdivisions and is fostered by the generally non-marked or poorly marked boundaries of the Federal land. Ecological damage including unauthorized timber cutting, fires, effluent wastes to the lake, soil erosion, and impactation are an oft-found result. For the general public this often results in numerous non-public lake accesses which would not otherwise exist and for which the Corps is unable to perform safety and assistance functions.

For purposes of visitor protection, security and safety, therefore, the natural setting, as well as human design, has some impact on the overall question. Table 6-6 adds some additional perspective to the scope of this issue. While ecological problems, as has been indicated, involve a variety of differing concerns, they do impact the level and quality of recreation use and the geophysical context in which visitor protection

TABLE 6-6

TYPE OF LAKE VS. PRIORITY OF VISITOR PROTECTION  
PROBLEM HIGHEST PRIORITY PROBLEM

| CLASS OF LAKE         | NONE | TRAFFIC | VANDALISM | ECOLOGICAL | BOAT VIOLATIONS | THEFT | PEACE DISTURBANCE |
|-----------------------|------|---------|-----------|------------|-----------------|-------|-------------------|
| Urban Within 30 Miles | 5    | 6       | 26        | 18         | 1               | 1     | 4                 |
| Urban Other           | 2    | 6       | 14        | 9          | 1               | 1     | 3                 |
| Rural                 | 8    | 21      | 41        | 30         | 0               | 4     | 12                |
| Other Parks           | 1    | 0       | 12        | 8          | 0               | 0     | 4                 |
| TOTAL LAKES           | 16   | 33      | 93        | 65         | 2               | 6     | 23                |
| PERCENT OF TOTAL      | 6.7  | 13.9    | 39.1      | 27.3       | 0.8             | 2.5   | 9.7               |

(Source: PRC/PMS Self-Report Questionnaire)

services must function. As previously indicated, ecological concerns in this context are also most closely related to protection of the natural and man-made environment from abuse and destruction. Of the 238 projects which responded to the question, over one quarter indicated that such ecological concerns were their highest priority problem in terms of visitor protection. Whether urban or rural in nature, ecological concerns appear to be high on the list of priorities.

B. Relationship Between Recreation and Visitor Protection

Between 1961 and 1971 visitor attendance at Corps recreation sites increased over 250 percent to 310 million in 1971. With this increase has been a corresponding spiral in the need for recreation services and facilities as well as for public safety measures. Corps sources suggest that this trend will continue as data in Table 6-7 indicate.\*

TABLE 6-7

CORPS OF ENGINEERS  
PROJECTED 1983 RECREATION ATTENDANCE AND  
ADDITIONAL FACILITIES BY WATER RESOURCE REGION

|                                                                   | Total<br>Attendance | Picnic<br>Sites | Camp<br>Sites | Boat Launch<br>Lanes |
|-------------------------------------------------------------------|---------------------|-----------------|---------------|----------------------|
| 1970 Total Attendance/<br>Existing Facilities                     | 276,000,000         | 67,540          | 48,734        | 5,309                |
| 1983 Total Attendance/<br>Total Additional<br>Facilities Required | 345,000,000         | 31,853          | 141,877       | 1,776                |

(Source: U.S. Army Corps of Engineers, FY-1973 Code 710 Program Recommendations)

\*Corps future recreation development is stringently limited by Federal Policy (P.L. 89-72) which requires a local match for development. Thus, the future trend is dependent upon local government resources and priorities.

One result of this has been that the manager and the ranger are left, for all general purposes, to establish for themselves the relative importance of recreation and corresponding visitor needs in the context of funding capabilities. This is not to say that there is a systematic neglect of recreation and other public needs but more to indicate that there is a general lack of understanding on the project level with regard to what is expected and required by way of recreation and visitor services. The feeling in many cases is that project personnel have been placed in a situation for which they are only partially prepared and for which they are not totally equipped. The Corps primary mandate in the development of public works projects apparently does not provide the needed directive associated with public use management and control. As a necessary element of recreation, law enforcement and visitor protection have gone a similar way and the link between the two not fully addressed in environmental and resource design. ✓✓

For example, establishment of limitations on camping in public use areas is not only a sound recreation practice but one which tends to avert tension and personal confrontations. At present, however, such policy is not uniformly recognized and certainly not enforced. In many State and National Parks maximum levels on visitor use areas are controlled by registration points and gate guards. This of course, would be a most desirable solution to frequent overcrowding in Corps public use areas. ✓ Yet, where numerous independent public use areas exist at a lake, the cost of additional personnel required for such an operation may be fiscally unfeasible. An alternative could be the use of innovative park practices which is thoroughly discussed in Chapter 18.

While many projects are utilizing various approaches to controlling area use, they are doing so in a more or less random manner and predominantly by virtue of the individual project manager's initiative, his knowledge of recreation and visitor protection practices and approaches, and the significance which he places upon the recreation and visitor use role of the Corps.

As a result, it was found that camping is frequently well above the level which public use areas can reasonably support and users are forced to camp where they can find room; toilet facilities, water, and other necessities are inconvenient to use or difficult to obtain; trees and vegetation are destroyed by uncontrolled vehicle use; and, access and utilization of boat launching areas, picnic tables, and other recreation items becomes a competitive enterprise rather than an enjoyable experience.

The repercussions in terms of visitor protection in these cases are typically visitor confrontations and strained associations, increased availability and chances of theft, pilferage and destruction of government property, excessive disturbances and rowdiness and generally uncontrolled conduct among certain segments of visitors. It should be noted that these problems are also not uncommon in related State and National Parks which generally enjoy more control authority and recreation design features.

By in large, while the Corps situation does not appear critical in this regard it need not and should not be overlooked. Short of increased law enforcement presence or other control measures, a great deal can be more economically accomplished by improvements in the design and delivery of recreation resources which are more attuned to human factor requirements. At this point, however, it is stressed that the beginnings of this approach should be based in (1) a more precise definition of the role of recreation in the Corps present and projected growth; (2) the development of specific policy relating to recreation management and public use development at the project level; and (3) the development of programs of technical, organizational, and management assistance at the District

and project levels aimed specifically at policy implementation. Improved law enforcement and visitor protection services are an inextricable part of this recreation policy which serves to improve the management of progressively increasing numbers of public users, and ultimately the recreation users experience.

C. Present Organization of Law Enforcement and Visitor Protection Services

The pattern of visitor protection and law enforcement varies to a degree throughout the nation depending in largest measure upon law enforcement availabilities. But, in addition, the pattern varies according to statutory requirements, the relationship of Corps personnel to state and local law enforcement agencies, and their perceptions of the needs and requirements of Corps areas with respect to law enforcement.

Available Agencies

The largest majority of lakes and reservoirs can call upon any one or combination of the following agencies.

- Federal Agencies

As Federal property, the Corps can call upon the many services of agencies such as the Federal Bureau of Investigation, the Drug Enforcement Administration, the Treasury Department, and the U.S. Marshal Service. Although some investigatory requests have been made of the F.B.I., these agencies are rarely used or considered in the course of day-to-day enforcement responsibilities.

- Corps Rangers

Enforcement of Title 36 Rules and Regulations is the responsibility of the Corps of Engineers Ranger. This authority does not allow for the power of arrest, search or seizure, nor the right to detain or otherwise restrict personal movement, although the ranger's still retain citizen's power of arrest.

- Provost Marshall and Security Officer

These individuals can be called upon by project personnel in cases involving assistance and support in the utilization of law enforcement services or in cases of emergency, although this is rare.

- State Police

Otherwise known as the Highway Patrol or Motor Patrol, State Police are available to all Corps project areas for the enforcement of federal, state and local laws. In many cases, however, the primary enforcement responsibility of this organization falls in the area of traffic enforcement and violations occurring in close proximity to state and county highways. Patrol and surveillance on a random or controlled basis is most frequently performed by State Police in Corps public use areas and as public highways cross Corps projects. State Police are not typically called by Corps personnel or users but more frequently respond to highway accidents and problems, and issue citations on sight.

- County Sheriff's Department

County Sheriff's Departments border Corps projects throughout the country with over 50 percent of all lakes falling in more than one jurisdiction. The County Sheriff's Departments are the predominant source of law enforcement for Corps projects and are most frequently called in response to problems or assistance.

- County Police Department

County police departments are the exception rather than the rule in terms of police agencies in the United States. In a number of instances, however, the services of county police agencies are available to Corps projects. In these cases their services are useful due to high visitation rates, and particularly if the County leases park land along a Corps lake. These are located almost exclusively in urban areas which can support, and which require an extra layer of law enforcement.



- City or Town Police

Cities or towns which maintain any substantial population generally support an independent city/town police or sheriff's department. Enforcement of city ordinances forms the bulk of their services, although they also enforce county and state laws. Generally, city and township police are not called into service for Corps needs, although there are a number of bordering municipalities at Corps projects which provide services in the contiguous areas. This is particularly the case in the instances where the city leases public park or shoreline property from the Corps.

- State Park Police

States frequently lease land from the Corps for park development and nearly all maintain Park Police to specifically control these areas. Park Police are armed and sworn state law enforcement agencies although they do not generally enforce state law outside park land. As state law enforcement officers, they may theoretically enforce the law on Corps property; yet, in many instances this authority is questionable to Park Police and their utilization at Corps projects is rare.

- County Park Police

Although less common than State Parks, a sizeable number of counties lease property for recreation around Corps projects. In the case of sizeable, more populous counties many maintain a separate County Park Police force. Enforcement of county ordinances and state law is within the purview of these policemen although they are almost exclusively utilized in county parks.

- State Fish and Game

Most states maintain a separate authority for the enforcement of fish and game laws throughout the State. One or more "agents" or "officers" are typically assigned to a given county or region although they maintain authority throughout the state for enforcement of fish and game laws as well as overall state law. The presence of these individuals

in and around Corps projects is generally high and relationship with Corps personnel good, although they are rarely called upon to provide enforcement services for state law violations. Lesser violations such as littering or vandalism are more frequently causes for citations issued by these individuals.

- Water Authority

As in the case of Fish and Game Departments, State Water Authorities are not infrequent. As a result of the Federal Boating Safety Act of 1971, most states have established a state administrative office to develop, administer, and enforce Federal and state laws and regulations pertaining to boating safety. Enforcement of state water safety regulations, boat registration and inspection is the primary function of these individuals, although they may also enforce state laws. Most Corps projects make maximum use of these officials or other water patrol authorities which may alternately be subsidized by the state through the counties. Rarely are these individuals involved or called upon to assist in law enforcement activities on shore areas. The U.S. Coast Guard also acts as the water authority for many corps lakes. While they thoroughly enforce boating and safety violations, they rarely, if ever, provide full enforcement.

As is apparent, the various levels and varieties of interrelated and overlapping enforcement authorities make for a generally uncoordinated "non-system" of law enforcement services. While this was found to be the case in many instances, it was found that a reasonably functional relationship had been established in others. The pattern of these relationships varies according to the nature of available law enforcement agencies and the level and type of violations at each lake. Generally, however, one finds the county sheriff as the primary law enforcement agency on a functional level, or the county police department where they are available. State parks, which predominate at Corps lakes, maintain their own authority, and county and city parks utilize the services of respective county and city police departments, or sheriff's offices.

Water surface enforcement is commonly provided by a state agency as are fish and game regulations.

#### Coordination and Utilization of Services

The problems associated with the coordinated use of these agencies, of relevance to this discussion, include the following:

- The majority of Corps lakes and reservoirs are in rural areas and are served almost completely by sheriffs departments. These agencies are among the least well-equipped, trained and paid of law enforcement agencies. Confronted with a massive influx of visitors to their areas, many cannot provide needed visibility, surveillance, traffic control, and investigation which are required. Increases in calls for service among their own constituency have generally increased in the past few years resulting in a decreased ability to perform preventive patrol and surveillance activities. The economic profile of many communities does not allow for increases in personnel or improvement in resources. As well, it is sometimes the case that these departments are restricted by law from performing preventive patrol and surveillance activities and can only respond to calls for service.
- Reporting and recording of crime and violations is an unsystematized process. At the project there is a consistent lack of telephones or other communications devices available to visitors (see Chapter 14 of this report entitled Communications). Reporting can be made to the Corps project office, a Corps ranger (if available), the State Police, County Sheriff or other law enforcement agency. The actual volume and nature of visitor protection and law enforcement problems can, as a consequence, remain somewhat obscure to project personnel. And certainly, statistics on violations and incidents reported through Corps channels do not accurately reflect the volume of offenses actually committed.
- While law enforcement agencies are legally committed to provide services to the Corps as they would any other private individual, the level and consistency is in large measure due to other factors such as:
  - The ability and willingness of project managers to interrelate with police departments and sheriffs' offices. The level of service is frequently not determined solely by project needs but by the project managers demands as they are presented in the context of the police departments related demands for service. Since the Corps can and does maintain a certain level of control, an overwill- ingness to "drop" the problem upon the police can cause ill feelings if not negative results.

-- Conversely, law enforcement assistance is dependent upon the initiative which managers and their staffs assume in attempting to handle visitor protection on an internal basis. The extremes of this effect were viewed during survey team field visits. One extreme finds project managers and staff assuming an extremely high volume of responsibility for internal control when at all possible, while another extreme finds this responsibility generally relinquished to the control of local law enforcement agencies. The perceived role of project staff and rangers in particular, with regard to their role, is at the heart of this determination. Needless to say, the various interpretations which are given to the need for, and use of, external law enforcement assistance has great impact upon: 1) the volume of project citations and warnings issued; and, 2) external agencies' perceived needs with regard to the status of project law enforcement.

- Finally, the random and unsystematized utilization of various types and levels of law enforcement agencies is a less cost-effective and efficient approach to visitor control and protection. While from its economic perspective this might initially be viewed as a problem specific to the agencies themselves, it has a direct bearing upon the quality of services provided to Corps projects. Duplication of record keeping, multiple levels of communication, uncoordinated patrol routines, general difficulty in transferring information between these various agencies, and confusion over jurisdiction and boundaries are frequent problems which impact Corps projects.

#### D. Surveillance and Preventive Patrol

The relationship between routine patrol, surveillance, and reported crime has long been recognized as a cause-effect relationship. That is, added patrol, on either a random or controlled basis, has been assumed to be a deterrent to crime. Recent studies of "saturation" patrol have begun to cause some reconsideration of this commonly held notion. A recently completed study of this type in Kansas City conducted by the Police Foundation found no relationship between concentrated or saturation patrol and normal or reduced levels of reported crime.

However, while the debate continues, it is important to note that the natural setting of parks varies significantly from urban environments. By in large, most park crimes are open, or potentially open, to surveillance more so than urban crime. Vandalism, theft, traffic violations,

and destruction of natural resources are among those crimes which are more subject to control by the mere presence of law enforcement officers. Thus, while the efficacy of preventive patrol remains moot, it is apparent that the potential for deterrence of crime by implementing this measure at the lakes exists. Surveying the actual use of preventive patrol, PRC/PMS found that, on a regular basis, preventive patrol or surveillance in Corps developed areas was:

- Available to just over one-fourth of all lakes by the state police, to just over one-third by county sheriffs or police departments, to about 20 percent of lakes by city police, and to less than one percent by private police;
- Provided by Corps rangers in more than half (55 percent) of all cases.

As is apparent, regularly scheduled preventive patrol by fully-authorized peace officers is the exception rather than the rule at Corps lakes. While the utilization or employment of preventive patrol is minimal, the perceived need for it is abundant. Table 6-8, for example, reveals the perceived need for patrol and surveillance of sworn police officers on a regular interval schedule during the summer season.

There is no appreciable difference between the rate of perceived need for 24-hour, 7 day-a-week surveillance between those in urban and rural areas. The largest majority in all three demographic categories indicate that project personnel feel regularly scheduled patrol is needed on a less than 24-hour basis, seven days a week.

#### E. Corps Citation Program

The Corps of Engineers citation program is a recent development aimed at the improvement of Corps control of, and assistance to, the public. Under the authority provided to Corps rangers in this effort is the enforcement of Title 36, code of Federal Regulations, which does not involve the authority to arrest, detain or restrict personal movement or to perform search or seizure. Title 36 Regulations primarily involve restrictions on visitor use of facilities and protection of lake natural resources through the use of citations.

TABLE 6-8

TYPE OF LAKE VS. TYPE OF PATROL WHICH CORPS  
PERSONNEL FEEL IS NEEDED

| PREVENTIVE<br>PATROL<br>NEEDED                   | TYPE OF LAKE RESPONDING     |                |       |
|--------------------------------------------------|-----------------------------|----------------|-------|
|                                                  | URBAN<br>WITHIN<br>30 MILES | URBAN<br>OTHER | RURAL |
| 24 Hours per Day<br>7 Days per Week              | 9                           | 7              | 16    |
| Less Than<br>24 Hours per Day<br>7 Days per Week | 20                          | 14             | 49    |
| Only on Weekends                                 | 5                           | 3              | 12    |
| Only on Holidays                                 | 0                           | 0              | 0     |
| No Regular Patrol<br>Access Only                 | 20                          | 8              | 27    |

(Source: PRC/PMS Self-Report Questionnaire)

190 = Total Respondents

### Personnel

The majority of Corps lakes are presently authorized to have on staff a ranger with citation authority. The ranger contingent at most Corps lakes appears to be a generally concerned and involved cadre of individuals, as well as being relatively well-equipped to function in their positions and to perform duties which are involved in Title 36 enforcement. For example, about 57 percent of all respondent lakes to the survey questionnaire maintained one or more four-year college graduates on their ranger staffs, 40 percent maintained two-year college graduates and an additional 21 percent presently have full-time rangers who are enrolled in college or junior college. As well, an additional 42 percent of all recreation lakes have full-time staff with law enforcement working experience.

### Time Devoted to Visitor Protection

The amount of time which rangers devote to the visitor protection duties and responsibilities is an indication of both the level of visitor protection problems and needs of the project, and the emphasis which is placed on such ranger duties. There is, nevertheless, a great deal of variance between the estimate of time which rangers devote to these chores regardless of the demographic location of the project. Questionnaire results indicate most clearly a variance between the amount of visitor protection time spent during the summer, which is the highest, and that which is spent during the remainder of the year. This finding is, of course, expected in view of the fact that all lakes average between 62 and 72 percent of total visitation during the summer periods regardless of the size or location of the project. Nearly 12 percent of respondents indicate that they spend no time at all on visitor protection while 13 percent spend more than 80 percent of their time on these activities. Disregarding the extreme cases, a pattern developed which indicated that the average ranger spent between 40 and 60 percent of his time on law enforcement and visitor protection during the summer and 10 to 20 percent of his time in the off-season.

Equipment for Visitor Protection

A survey of available law enforcement or visitor protection/ security equipment available at Corps locations reflects the same generally low priority which is given to visitor protection needs at the project level and funding priorities at other echelons. For example, 58 percent of all Corps ranger trucks and jeeps and 68 percent of all other passenger vehicles are not equipped with police radios. The result, as revealed in some cases in field interviews, is that rangers have no effective means of communication readily at hand in case of emergency. The best alternative is frequently the telephone with which to call the project office or the local police, if in fact a public telephone is easily available. In addition, the lack of communications in the form of two-way radio increases the feeling, if not the reality, of isolation of rangers during the performance of their field work. In large and generally remote projects this is particularly pronounced, as well as during late evening field shifts and for female employees who are often in the field performing technician duties. Trucks and other passenger vehicles are quite plentiful at most locations and at least several of these should be equipped with permanent radio gear. Portable remote units which can utilize these vehicle mounted sets are also currently on the market and would be well worthwhile in the most heavily used areas.

Alternative means of travel of particular utility in parks and recreation areas are almost completely unavailable to Corps areas. For example, in only two areas are horses used; bicycles are available in only six project locations; and two-wheel motorcycles in only three others. Of particular importance is the fact that all these approaches are more economical than the traditional passenger car or cargo van. But also, these means of transportation are more effective tools of public relations, mobility, and access in other than public use areas, and in increasing Corps visibility and the visibility of the public. Presently, project areas are limited in their transportation availabilities, generally to one or more passenger vehicles and a number of utility and cargo vans. Only the four wheel drive vehicles are capable of use in the remote



or otherwise undeveloped areas, and even then access to many areas can only be accomplished by foot. In the larger project areas and among those which have the greatest visitor protection problems, off-road modes of transportation, such as horses and dirt bikes, should be considered. For the summer technician, who is assigned a limited area, use of a bicycle would be more economical and convenient.

Water patrol equipment is somewhat more plentiful in respect to the apparent need. As previously noted most states assume the largest share, or the total responsibility, for water patrol and frequently in conjunction with the U.S. Coast Guard. The resources of these agencies, organization and management, law enforcement capability, and authorization make water control and safety a minimal concern at the majority of Corps lakes. The Corps has access to the water by means of boating equipment at over 80 percent of the lakes surveyed. In most cases, however, they do not perform regular patrol but leave this operation to state and local authorities. This situation is further discussed in Chapter 7.

Related law enforcement equipment such as firearms or riot sticks are extremely rare at Corps sites, and understandably so in view of the lack of legal authority to utilize these weapons in the course of their regulatory duties.

Consistent with the foregoing findings is the relatively low level of budgetary funding devoted to security and protection. For example, nearly 40 percent of all projects provide no personnel salaries for security and protection, and an additional 40 percent provide only between 1 and 9 percent toward this purpose. In only six separate cases do personnel expenditures in this context exceed 19 percent of total budgets. In part, these low personnel costs for law enforcement reflect a number of lakes which do not have a ranger contingent and a great many others whose rangers are primarily involved in other types of recreation duties at the lake.

A similar picture is found with regard to percentage of expenditures involved in operating costs. In this case 95 percent of all lakes incur less than 10 percent of their operating costs through security and protection functions. In other areas the situation is essentially the same; contract maintenance services and construction connected with security and protection are not of measurable significance nine times out of ten, and about 25 percent of all lakes spend between 1 and 9 percent of their budgets for equipment.

#### Ranger Perception of Citation Authority

The sufficiency of the authority of Corps rangers is a question upon which there is a significant amount of disagreement at the project level. The data in Table 6-9 represents project personnel response to the statement that: "The citation power and ranger authority is sufficient to maintain order at the lakes." Data indicates that overall, nearly half of the projects disagree, indicating the need for additional authority, while approximately one-third agree with the statement.

Interpolation of data in Table 6-9 also reveals a difference in opinion between those at urban lakes and those at rural lakes. Over half of those in rural areas feel or strongly feel the need for additional authority, while only about one-fifth of those at urban lakes feel the same way. Yet, reference to Table 7.1 in Chapter 7 indicates that urban lakes more frequently indicate that they have a law enforcement problem and issue a proportionately greater number of warnings and citations.

There is at least one plausible explanation for this difference of response between urban and rural lakes. That is, while urban projects are more prone to spill over of crime from nearby areas they also have a greater number and variety of law enforcement agencies upon which to call for assistance. Previous data indicated the prevalence of city and county authorities to urban projects. Apparently, a good number of these are being used on a level which is more adequate to project personnel in urban than rural areas. A corollary to this involves the fact that less law

TABLE 6-9

TYPE OF LAKE VS. CORPS PERSONNEL'S PERCEPTION  
OF THE SUFFICIENCY CORP RANGER AUTHORITY

| TYPE OF LAKE<br>RESPONDING | RESPONSES         |       |           |          |                      |       |
|----------------------------|-------------------|-------|-----------|----------|----------------------|-------|
|                            | STRONGLY<br>AGREE | AGREE | UNDECIDED | DISAGREE | STRONGLY<br>DISAGREE | OTHER |
| Urban Within<br>30 Miles   | 2                 | 18    | 17        | 10       | 3                    | 11    |
| Urban Other                | 2                 | 10    | 4         | 14       | 5                    | 1     |
| Rural                      | 6                 | 28    | 18        | 39       | 16                   | 9     |
| Other Parks                | 1                 | 6     | 5         | 9        | 2                    | 2     |
| TOTAL LAKES                | 11                | 62    | 44        | 72       | 26                   | 23    |
| PERCENT OF TOTAL           | 5.1               | 28.8  | 20.5      | 33.5     | 13.0                 | 11.0  |

(Source: PRC/PMS Self-Report Questionnaire)

enforcement is readily available in rural areas and that which is available is frequently less well-equipped and organized. In many rural areas this can give rise to a feeling of isolation and vulnerability to real and potential problems. In some rural areas, this is an observed reality. Use of citation authority in these areas, if not throughout the Corps, is greatly dependent upon the individual who is confronted, as well as the situation in general. By himself, in some instances, rangers would prefer to avoid issuance of citations if at all possible, for in reality the violator need only refuse to cooperate with the ranger or simply walk away to avoid receiving the citation. And too, it is typically the case that, on the estimate of rangers and local authorities, a good number of firearms are being carried into these recreation areas by campers and day users which adds to the potential threat.

In any event, it is a reality that some of the feeling in rural areas regarding the insufficiency of citation is based upon both a psychological and a real threat of ranger insecurity during the course of performing their duty. This point is substantiated to a degree in Table 6-10, which reflects the level of cooperation that visitors give to rangers when reprimanded. Although only a few serious problem locations of this type exist, nearly all of them are associated with rural projects. That the threat to ranger security is partially psychological is indicated by the fact that only four lakes reported that any actual assaults on rangers had occurred.

The feeling that rangers need more authority, such as the power of arrest and firearms, is also more prevalent among rural Corps projects than among urban projects as data in Table 6-11 and Table 6-12, respectively, indicates for those who responded.

With regard to the desire for arrest power and carrying firearms, 38 percent and 37 percent of urban lakes agree or strongly agree that these are needed, respectively, while 59 percent and 45 percent of rural lakes hold the same respective opinion. On the negative side of this issue, 30 percent

TABLE 6-10  
TYPE OF LAKE VS. RESPONSE OF VISITORS  
TO VERBAL WARNINGS

| TYPE OF LAKE<br>RESPONDING | RESPONSES |                     |                         |                    |                         |
|----------------------------|-----------|---------------------|-------------------------|--------------------|-------------------------|
|                            | NOT GIVEN | VERY<br>COOPERATIVE | SLIGHTLY<br>COOPERATIVE | UN-<br>COOPERATIVE | VERY UN-<br>COOPERATIVE |
| Urban Within 30<br>Miles   | 5         | 25                  | 30                      | 0                  | 1                       |
| Urban Other                | 1         | 19                  | 14                      | 2                  | 0                       |
| Rural                      | 4         | 41                  | 64                      | 5                  | 2                       |
| Other Parks                | 2         | 14                  | 8                       | 1                  | 0                       |
| TOTAL LAKES                | 12        | 99                  | 116                     | 8                  | 3                       |
| PERCENT OF TOTAL           | 5.0       | 41.6                | 48.8                    | 3.3                | 1.2                     |

(Source: PRC/PMS Self-Report Questionnaire)

and 40 percent of urban projects indicate that they either disagree or strongly disagree with the need for arrest power and firearms in that order; while in rural settings, 27 percent and 36 percent maintain the same respective feelings. While not overwhelming, there is an obvious trend in this data which finds rural projects more desirous of increased authority and personal protection.

### SECTION III

#### CRIME AND INCIDENT DATA

Thus far, we have confined the discussion of the status of Corps law enforcement to general and typically pervasive issues relating to the environment and organizational framework in which law enforcement and visitor protection is being conducted. These have included the characteristics of the areas under discussion as they impact the issue at hand, recreation and visitor management and control, the network and interrelationship of available law enforcement agencies, and an overall perspective of the Corps citation program to include personnel availabilities and perspectives, roles and allocation of law enforcement resources. These issues have been meant to provide a context in which statistical data on the incidence of crime and violations can be interpreted. It is necessary to proceed in this manner as these statistics, in and of themselves, cannot be used as the basis for conclusions. In particular, problems relating to reporting and recording of crime and incident statistics should be kept in mind in the present discussion.

#### A. Citations and Warnings

Table 7.1 in Chapter 7, indicates the actual volume of citations and warnings issued at Class A and B lakes. In 1972, there were 9,830 warnings and 1,641 citations issued at the lakes in these categories.

These figures are somewhat deceiving since other data also indicates that no citations were issued at 41 A lakes and 81 B lakes. This is due in part to the attitudes and perceptions of authorized personnel concerning the issuance of citations and in part to the fact that some lakes simply have an insignificant level of offenses. In the case of B lakes

an additional problem exists in that there are simply not enough personnel available with the citation authority.

The geographical location of these citations and warnings are rather unevenly distributed throughout the various Corps Divisions in the United States. On the basis of data collected by the Provost Marshal's Office, citations and warnings were issued on the following levels:

|                          | <u>Warnings</u> | <u>Citations</u> | <u>Total</u> |
|--------------------------|-----------------|------------------|--------------|
| Lower Mississippi Valley | 4,381           | 560              | 4,941        |
| Southwestern             | 2,415           | 308              | 2,723        |
| Ohio River               | 1,994           | 394              | 2,388        |
| South Atlantic           | 998             | 342              | 1,340        |
| South Pacific            | 956             | 41               | 997          |
| Missouri River           | 545             | 22               | 567          |
| North Atlantic           | 0               | 440              | 440          |
| North Central            | 53              | 0                | 53           |
| North Pacific            | 23              | 1                | 24           |

These data provide a fairly good prioritized picture of the areas in which citations and warnings are most prevalent and which maintain the most notable law enforcement concerns. Reference to Figures 5-B and 5-C in Chapter 5 reveal that the priority Divisional areas (Lower Mississippi Valley, Southwestern Ohio River and South Atlantic) correspond with the mapping of Class A lakes which are being addressed here.\*

\*The total differs from the total in Table 7-1 since the Provost Marshal's Office and Corps Recreation Management Division use somewhat different collection schemes.



Conclusions on the basis of citations and warnings alone must be approached cautiously, but the situation as portrayed by these data indicates that problems of law enforcement are relatively more acute in urban lake locations. It should be clear, however, that available citation data can at best only indicate the relative location of law enforcement problems and not their actual level. Several reporting problems intervene to reduce the potential number of violations which could be cited by rangers. Some of these factors have been discussed previously but should be briefly reiterated here.

- The vast majority of violations of Title 36 regulations are not reported by visitors as they are not typically of a nature that involve complainant parties. The majority have to be observed by a ranger in order to be cited.
- Most violations are committed out of the view of rangers given the great size of most lakes, the lack of large numbers of patrolling rangers with citation authority, the geographical characteristic of the lakes and the general obscurity of the offenses committed such as petit larceny, vandalism and traffic violations.
- When confronted with a violation, rangers frequently prefer to:
  - (1) disregard it depending on its nature and circumstances or
  - (2) give the individual(s) a verbal warning rather than a written warning or citation. The actions of the ranger are significantly influenced by his understanding of the project manager's philosophy, his perception of his role as a "ranger" who is involved in recreation and visitor protection, and his perception of the significance and effectiveness of the citation program. In all, there is a great deal of difference of attitude, opinion and action in this area depending upon the individual project situation.

As a result of these and other factors, a great many "citable" violations of Title 36 go unnoticed or are not enforced. While it is difficult to estimate the actual level of Title 36 violations, nevertheless, on the basis of field visits and surveys, and discussions with project personnel, it would be conservatively estimated that between 8 to 10 times the number of recorded violations are actually being committed. Again, however, even if rangers were aware of these additional violations, it is doubtful if more than half would be cited in addition to the present level.

The primary reason for issuance of these citations is presented in Table 6-13. Those who did not answer the question are almost exclusively among those lakes which did not issue citations. Among the reporting lakes, motor vehicle violations rank as the number one reason for the issuance of citations, with rural lakes indicating about three times the ratio of citations in this area as urban lakes.

#### B. Traffic Incidents and Violations

Incidents related to parking are considered to be the number one traffic problem. Thirty-one percent of those completing the survey indicate parking as the first problem, while an additional 43 percent note it as the second or third reason for issuance of traffic citations.

Twenty eight percent indicate that the illicit use of off-road vehicles is the primary reason for the issuance of motor vehicle related violations. As indicated in a previous section of this chapter, trail bikes and four-wheel drive vehicles are commonly used in Corps recreation areas and are frequently the causes of soil impaction around camping areas and resultant destruction of trees and shrubbery. Also, they are often the cause of related ecological damage, as well as the illicit development and use of unauthorized access ways.

Moving traffic violations is the third most cited problem associated with motor vehicle offenses. Just over 30 percent of all respondents note this as their first or second priority in the area of motor vehicular control. A less significant concern, although worth noting, are problems relating to traffic congestion, with about 30 percent of lakes indicating that this is their second or third area of priority concerning motor vehicles. It is also interesting to note that traffic accidents and vehicle breakdowns are not considered as prevalent issues.

Traffic violations, among most law enforcement agencies, are the most frequently reported offenses in the Part II classification. There is little doubt that, with sufficient surveillance, Corps rangers could

Table 6-13

TYPE OF LAKE VS. NUMBER ONE REASON  
FOR ISSUANCE OF CITATIONS  
VIOLATIONS

| TYPE<br>OF<br>LAKE       | NO<br>ANSWER | MOTOR<br>VEHICLE | VESSELS | EXCESSIVE<br>NOISE | DESTRUCT<br>PROPERTY | CAMPING<br>VIOLATION | NONPAYMENT<br>OF FEE | INTERFERE<br>GOVT.<br>EMPLOYEE | SANITATION<br>VIOLATION |
|--------------------------|--------------|------------------|---------|--------------------|----------------------|----------------------|----------------------|--------------------------------|-------------------------|
| Urban Within<br>30 Miles | 41           | 11               | 4       | 0                  | 0                    | 3                    | 1                    | 0                              | 1                       |
| Urban Other              | 18           | 9                | 2       | 0                  | 1                    | 2                    | 1                    | 0                              | 3                       |
| Rural                    | 69           | 24               | 0       | 2                  | 5                    | 8                    | 3                    | 0                              | 5                       |
| Other Parks              | 18           | 4                | 0       | 0                  | 0                    | 0                    | 1                    | 0                              | 2                       |
| TOTAL LAKES              | 146          | 48               | 6       | 2                  | 6                    | 13                   | 6                    | 0                              | 11                      |

(Source: PRC/PMS Self-Report Questionnaire)

issue a great many more citations than current levels indicate. For example, the National Park Service charges over 30,000 persons annually for driving violations and about the same for parking violations or about 80 percent of all Part II citations. While the NPS situation is not directly analogous to that of the Corps, it does illustrate the upper limits of driving/traffic law violations that exist in the recreation environment.

While traffic control is considered to be one of the Corps primary law enforcement problems, it generally has less harmful repercussions than direct offenses against persons or property. As well, the largest part of the problem at Corps locations, as previously noted, has to do with parking violations which can in great measure be remedied through adequate posting and more frequent surveillance.

#### C. Law Enforcement Problem

While motor vehicle related problems are the number one reason for the issuance of citations, they are not considered to be the most pressing law enforcement problem. Table 6-14 indicates that over 40 percent of all respondents report that vandalism is the most significant problem which they face. Apparently, even though motor vehicle violations are prominent, regulations in this respect are more readily enforceable than acts of vandalism, and vandalism is significantly more widespread and destructive. For example, respondents were asked to estimate the annual governmental cost including labor of replacement and restoration of equipment, furniture, buildings, embankments and so forth, at the lake due to crime, vandalism and littering. The greatest majority of respondents indicate that it costs approximately \$2500 annually for this task with one respondent listing as much as \$100,000 annually. It is estimated that the annual governmental cost due to crime and vandalism is almost \$1.6 million. (Further discussion in this section under Part E will readdress this issue; at this point it is sufficient to note this figure as an underestimate.) While over half stated that these costs have remained essentially the same over the previous year, nearly one-quarter of the lakes

TABLE 6-14

## TYPE OF LAKE VS PRIORITY OF PROBLEMS

## LAW ENFORCEMENT PROBLEM

| TYPE<br>OF<br>LAKE       | TRAFFIC     | VANDA-<br>LISM | ECOLO-<br>GICAL | BOATING<br>VIOLATIONS | THEFTS     | PEACE<br>DISTUR-<br>BANCE | NO RESPONSE |
|--------------------------|-------------|----------------|-----------------|-----------------------|------------|---------------------------|-------------|
| Urban Within<br>30 Miles | 6<br>2.521  | 26<br>10.924   | 18<br>7.563     | 1<br>0.420            | 1<br>0.420 | 4<br>1.681                | 5           |
| Urban Other              | 6<br>2.521  | 14<br>5.882    | 9<br>3.7821     | 1<br>0.420            | 1<br>0.420 | 3<br>1.261                | 2           |
| Rural                    | 21<br>8.824 | 41<br>17.227   | 30<br>12.605    |                       | 4<br>1.681 | 12<br>5.042               | 8           |
| Other Parks              |             | 12<br>5.042    | 8<br>3.361      |                       |            | 4<br>1.681                | 1           |
| TOTAL LAKES              | 33          | 93             | 65              | 2                     | 6          | 23                        | 16          |
| PERCENT OF TOTAL         | 14.9        | 41.9           | 29.3            | .9                    | 2.7        | 10.3                      | 7.2         |

(Source: PRC/PMS Self-Report Questionnaire)

indicated that these costs have increased over last year. The increasing trend was slightly more significant at urban lakes.

Table 6-15 indicates that the second most prevalent problem faced by lake personnel is ecological damage and destruction. To a great degree this area interrelates with other problem areas already noted, such as ecological damage due to use of off-road vehicles, littering, dumping, sanitation problems and destruction of the natural and man-made environment. Traffic-related issues are listed as the third most prevalent problem. Although many rangers and other project personnel frequently emphasize the incidence of order disturbances at the lake, it is interesting that this is not given any significant weight in the context of problem issues. Similarly, theft is apparently not of major significance to project personnel. This is in large measure due to the fact that thefts are reported to police or sheriffs' departments directly and project personnel frequently do not receive these reports and do not become involved.

#### D. Extent of Part I Crimes

A second layer of law enforcement problems relate to the more serious classification of crime which generally falls outside the authority of rangers and Corps personnel to handle. These categories have been previously referenced as Part I and Part II crimes as classified by the FBI's Uniform Crime Reports, or felonies and serious misdemeanors.

Two sources were used to estimate the number of Part I crimes occurring at the lakes during 1973. One source was a report prepared by the Engineer Provost Marshal based on information provided by each lake. The second source was a question in the survey which requested the number of Part I crimes by crime category from Corps personnel and local law enforcement.

TABLE 6-15

## TYPE OF LAKE VS. SECOND PRIORITY PROBLEM

## LAW ENFORCEMENT PROBLEM

| TYPE<br>OF<br>LAKE       | TRAFFIC | VANDALISM | ECOLOGICAL | BOAT<br>VIOLATIONS | THEFTS | PEACE<br>DISTURBANCE | NO RESPONSE |
|--------------------------|---------|-----------|------------|--------------------|--------|----------------------|-------------|
| Urban Within<br>30 Miles | 13      | 12        | 22         | 2                  | 3      | 3                    | 6           |
| Urban Other              | 4       | 10        | 15         | 1                  | 3      | 1                    | 2           |
| 68 Rural                 | 30      | 27        | 33         | 2                  | 6      | 6                    | 12          |
| Other Parks              | 7       | 8         | 6          | 0                  | 2      | 1                    | 7           |
| TOTAL LAKES              | 54      | 57        | 76         | 5                  | 14     | 11                   | 21          |
| PERCENT OF TOTAL         | 22.7    | 23.9      | 31.9       | 2.1                | 5.9    | 4.6                  | 8.8         |

(Source: PRC/PMS Self-Report Questionnaire)

The complete inconsistency of results from the two sources is reflected in the following tabulations:

| <u>Offense</u>     | <u>Number of Offenses</u>         |                            |
|--------------------|-----------------------------------|----------------------------|
|                    | <u>Provost Marshal<br/>Report</u> | <u>Survey<br/>Question</u> |
| Homicide           | 10                                | 17                         |
| Rape               | 3                                 | 20                         |
| Robbery            | 4                                 | 123                        |
| Aggravated Assault | 6                                 | 93                         |
| Auto Theft         | 25                                | 46                         |
| Larceny            | 713                               | 3,354                      |
| TOTAL              | 761                               | 3,653                      |

None of the figures are even remotely close. The survey estimates almost five times the number of Part I crimes reported to the Provost Marshal.

There is also considerable evidence that the survey results grossly underestimate the actual number of Part I offenses. Comparisons were made between the survey results and some of the projects visited by members of PRC/PMS. It was found, for example, that the survey response from J. Percy Priest Reservoir indicated 31 thefts in 1973, but records from the Metro Nashville Police Department show between 88 and 100 thefts reported. Similarly, the survey from the Grapevine Reservoir reflected no assaults, but the Grapevine Police Department recorded three aggravated assaults, seven simple assaults, four cuttings and 15 affrays. Compounding these statistics is the fact that the Grapevine Police Department has jurisdiction over only a portion of the project. Finally, the Green Peter/Foster Lake project stated 15 to 20 thefts but the Linn County Sheriff reported 40 to 50 thefts.

The reporting problem is easy to identify. Corps personnel are simply not notified when an incident occurs. The victim is much more likely to call the locally recognized law enforcement agency rather than Corps personnel. Additionally, the local law enforcement agencies fail to notify the Corps project manager that any incident has occurred. No mechanism exists for ensuring feedback of information pertinent to law enforcement and visitor protection.



It is therefore, impossible to accurately pinpoint the exact level of Part I offenses either at individual sites or on a national basis. V07 Tvd

The PRC/PMS project team considered several alternate procedures which could give reasonable estimates of the extent of Part I crimes in the parks. One alternative discussed was the use of an enforcement report produced by the State of California on the crime in its parks. It was anticipated that the results could be extrapolated to the rest of the country. This approach was rejected because (1) the data in the report appears to suffer from the same reporting problems previously cited and (2) no extrapolation procedure seems reasonable based on only one state.

However, as indicated in Section I, of this chapter, the National Park Service (NPS) has developed a comprehensive system for recording Part I crimes based on the Uniform Crime Reporting system. Crime information is channeled to the NPS and summarized into reports showing the number of offenses reported, unfounded reports, offenses cleared, and persons arrested. The NPS may, in fact, have a significant advantage over the Corps since it usually has exclusive jurisdiction over its territory both legally and geographically. Thus, a crime victim is more likely to report an offense to NPS authorities rather than the local authorities. Crime statistics on a national basis can then be developed for NPS parks since there is a requirement and mechanism for each NPS park to forward its statistics.

It is reasonable to assume that the NPS crime statistics can be used to approximate the amount of crime in Corps parks. Previous studies have shown that visitors to recreation areas base their choice on convenience and availability (or lack of alternatives) with "unique features" of the area being a lesser consideration. Thus, individuals seeking use of federal recreation areas are generally similarly-oriented; that is, an individual visiting a national park is also likely to be the type to visit a Corps reception area with the exception of more water activities at Corps lakes.

There are two major difficulties with this approach. First, it is generally believed that persons visiting a national park have a longer average stay than persons visiting a Corps lake. It is more likely they will spend the night at a national park. This phenomena is a problem in trying to compare recreation day statistics between NPS and the Corps. NPS employs the following definition in developing its recreation day statistics:

Visit: The entry of any person into a national park such that he makes some use of the services or facilities provided by the National Park Service.

Overnight Stays: Park visitors in campgrounds and in commercial accommodations within the parks.

The Corps uses the following definition:

Recreation Day: The attendance of one person at the project for the purpose of engaging in one or more recreational activities for one day or a fraction thereof.

The second problem is that it is now a well established fact, as previously discussed in this chapter, that a significant percentage of crimes are not reported by victims to any authority. Thus, the NPS crime summaries underestimate the problem as well, since only reported crimes are reflected. Victimization surveys by the Law Enforcement Assistance Administration indicate that the percent of crimes reported to the police is approximately as follows:

| <u>Crime *</u><br><u>Category</u> | <u>Percent Reported</u><br><u>to Police (R<sub>1</sub>)</u> |     |
|-----------------------------------|-------------------------------------------------------------|-----|
| Rape                              | 50%                                                         |     |
| Robbery                           | 52                                                          |     |
| Assault                           | 42                                                          | (1) |
| Burglary                          | 54                                                          |     |
| Larceny                           | 31                                                          |     |
| Auto Theft                        | 94                                                          |     |

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\*It is believed that virtually all homicides are reported.

In 1971, the NPS recorded 200,543,300 daily visits and 13,411,200 overnight stays. These data were the most currently available for the present study. It is assumed that the average length of a daily visit is eight hours and the average length of an overnight stay is 24 hours. Thus an estimated number of visitor days for NPS is given by

$$NPS_D = \frac{8(200,543,300) + 24(13,411,200)}{24} = 80,259,000 \quad (2)$$

For 1971 the NPS reported the following Part I crimes:

| <u>Crime Classification</u> | <u>NPS Crime Statistics (NSI(C<sub>i</sub>))</u> |
|-----------------------------|--------------------------------------------------|
| Homicide                    | 9                                                |
| Rape                        | 61                                               |
| Robbery                     | 194                                              |
| Assault                     | 233                                              |
| Burglary                    | 715                                              |
| Larceny                     | 4,052                                            |
| Auto Theft                  | 141                                              |
| Total                       | 5,405                                            |

For the purpose of this section crime at the Class A lakes will be estimated. According to Figure VI, the number of recreation days at these parks was 236,381,900. It is assumed that the minimum amount of time spent in a recreation day is five hours and the maximum amount of time is eight hours. Thus, the number of visitor days ranges between

$$CE_D^{Min} = \frac{5(236,381,900)}{24} = 49,246,200 \quad (3)$$

and

$$CE_D^{Max} = \frac{8(236,381,900)}{24} = 78,794,000 \quad (4)$$

Using all the information developed above, the range of the actual crime statistics can be estimated by assuming proportionality and adjusting for unreported crimes. The relationships are

$$CE_{D}^{\text{Min}}(C_i) = \frac{CE_D^{\text{Min}} \times NPS(C_i)}{NPS_D \times R_i} \quad (6)$$

and

$$CE_{D}^{\text{Max}}(C_i) = \frac{CE_D^{\text{Max}} \times NPS(i)}{NPS_D \times R_i} \quad (7)$$

where  $CE_{D}^{\text{Min}}(C_i)$  = Estimate of the minimum amount of crime type  $C_i$  in the Corps lakes;

$CE_{D}^{\text{Max}}(C_i)$  = Estimate of the maximum amount of crime type  $C_i$  in the Corps lakes;

$CE_D^{\text{Min}}$  = Estimate of the minimum number of visitor days at Corps lakes from (4)

$CE_D^{\text{Max}}$  = Estimate of the maximum number of visitor days at Corps lakes from (5)

$NPS(C_i)$  = Number of reported crimes of type  $C_i$  at NPS from (3)

$NPS_D$  = Estimate of the number of visitor days at NPS parks from (2)

$R_i$  = Estimate of percent reported to the police of crime type  $i$  from (1).

Applying (6) and (7) to the NPS crime statistics gives the following estimates of crime at the Corps lakes:

| <u>Crime Classification</u> | <u>Corps Crime Estimate</u> |                |
|-----------------------------|-----------------------------|----------------|
|                             | <u>Minimum</u>              | <u>Maximum</u> |
| Homicide                    | 5.5                         | 8.8            |
| Rape                        | 74.9                        | 119.8          |
| Robbery                     | 228.9                       | 366.3          |
| Assault                     | 340.4                       | 544.6          |
| Burglary                    | 812.4                       | 1,299.9        |
| Larceny                     | 8,020.2                     | 12,832.4       |
| Auto Theft                  | 92.0                        | 147.3          |

The above statistics are rough estimates of the amount of Part I crimes because of the estimation procedure involved and because no valid crime data from Corps lakes are available. However, these estimates indicate that the Corps lakes have a reasonable Part I crime problem. What these figures reveal is that on the average an estimated 75-80 serious crimes are committed at Corps class A lakes annually. Thus, on an average seasonal weekend between four and five serious crimes are committed at those lakes.

It seems apparent that one incurs a reasonable degree of risk at Corps lakes of becoming a victim of serious crime. Thus, at a lake with a weekend population of 30,000, one out of every 6,000 visitors is likely to be a victim of serious crime. The probability is far greater that this crime will be a property crime than a crime of personal violence. These rates do not apply uniformly to all lakes in the A classification, since averages are being applied and should not be considered necessarily as a representative picture of all Corps recreation areas. What should be conclusive and most significant from these estimates is the fact that a significant amount of crime is not being reported to the Corps personnel at all lakes throughout the nation, and because of this, the severity of the problem can only be generalized. One is left with the legitimate impression that the crime which is known to the Corps, as well as local law enforcement agencies surrounding Corps lakes, is only a microcosm of the actual level of crime being committed.

#### E. Vandalism

Overshadowing the Part I crime problem is the extent of vandalism at the lakes. Virtually all respondents to the survey indicated vandalism as a significant problem at the lakes.

Again, however, Corps incident reports provide only a partial picture of the actual level of the problem. For example, the Corps Incident Report for 1973 records 579 incidents of vandalism to government property and an additional 38 incidents involving private property for

total losses of \$64,903 and \$454,095, respectively. Yet, based on field visits, observation, and conversations with park personnel, it can be said that this is only a small percentage of actual losses.

In many cases, the vandalism to government property, while of a costly nature, may not necessitate a capital or replacement expense, but may be repaired through a labor expense. In these cases, the actual or total cost of the vandalism may not be recorded and reported because it did not involve a material expense but rather a manpower expense. The administrative burden and time required to fill out an incident report, given the volume of vandalisms, are prohibitive and generally avoided. In addition, because of the above factors, the cost of vandalism to government property, when reported is often underestimated.

Data for private visitor losses due to vandalism, if reported, are more likely to be recorded by the Corps lake personnel. If one uses the data on financial loss of vandalism incurred by visitors, a more reasonable and accurate approximation of the vandalism problem can be determined. For example, data from a research study conducted for the U.S. Forest Service<sup>6</sup> indicated that vandalism of campground facilities is about seven times more than that of private property and damage to the environment about two to three times that incurred by private individuals. These findings are not only logical but consistent with data and observations of field surveys. Applying these adjustments to the Corps cost figures for recorded visitor losses, we find governmental losses due to vandalism of approximately \$3.2 million for facilities and an additional \$.9 to \$1.1 million in damage to natural resources. We know that vandalism of private property is also under-reported, and possibly by a factor of four or more based on the previously referred to LEAA surveys. To that extent, it is entirely possible that Corps annual losses due to vandalism, abuse, and neglect could range between \$7 and \$10 million in facilities and resources and an additional \$2 to \$3 million in natural environment destruction. This is a reasonable figure when one considers for example, that the cost of park vandalism in New York City alone last year was \$1,167,904.<sup>7</sup>

There is little wonder why vandalism is considered as the Corps' foremost problem, notwithstanding the relatively high occurrence of larceny and traffic offenses. The destructiveness which can be performed in a short period of time by one or more individuals makes offenses in this area more significant and more visible to project personnel if not to the average visitor. In addition, the costs incurred by visitors in terms of lost recreation opportunities and decreased enjoyment are unmeasurable.

#### F. Factors Associated with Violations and Offenses

Due to the low number of reported offenses by Corps lakes, no statistical correlations could be developed with regard to the distribution of Part I crimes between urban and rural areas.

However, within each project there are a number of factors which seem to correlate with the occurrence of incidents, citations and statutory violations. For example, the largest number of both urban and rural lakes indicate that the majority of their citations are issued at day use locations while the second most frequent place is at overnight camp sites. Obviously these are the two major public use areas and would be expected to carry the greatest percentage of violations. However, it is interesting to note the greater volume of offenses attributable to day use areas. In these locations there is less "commitment" to maintenance and control in the area, and, the general transience of users in these areas would tend to make visitors feel less obligated to regulations. Less than 10 percent of the lakes reported any significant criminal activity on the water surface or in the undeveloped areas.

The majority (56 percent) of lakes note that they feel law enforcement problems are primarily due to adults. However, a substantial 40 percent also feel that juveniles are the primary cause. There is little evidence to indicate which violations it is felt these age groups are responsible for, although many feel that youths are most frequently involved in rowdiness and vandalism.

The foregoing two points have implications for the difference in the volume of problems at urban and rural lakes. That is, urban lakes are utilized to a proportionately greater degree by day users than rural lakes and can be considered more convenient to a great many more youths. These factors combined with the greater concentration of attendance at urban lakes augments their overall vulnerability to violations as has been indicated.

In terms of time of occurrence, the indications are significant from the survey that three times as many respondents listed Saturday as the day on which the greatest number of law enforcement problems occur, rather than any other day. Sunday was listed next, followed by Friday. In this respect, holidays are rated as even worse for law enforcement problems, as over 90 percent of the Corps lakes responded in this fashion. In addition, the vast majority of respondents listed the hours between 8 p.m. and 12 p.m. as accounting for the occurrence of their primary law enforcement problems, both during the summer and the rest of the year. The hours between 12 p.m. and 3 a.m. were listed next.

Thus, a law enforcement problem at a Corps lake is most likely to occur on the weekend, preferably Saturday, between the hours of 8 p.m. and 12 p.m. at a developed area during the summer. In over half the cases the offender will be an adult.



#### Section IV IMPLICATIONS AND SUMMATION

The implications of these law enforcement trends described in this chapter should be made clear for Corps recreation program development. In reference to inadequate law enforcement and visitor protection, over 70 percent of the Corps lakes responding to the question reported that inadequate law enforcement and visitor protection arouses fear and anxiety in visitors and may be a significant factor in their choice to use other recreation areas. Also, over 80 percent reported this laxity attracts troublemakers. As well, nearly 40 percent of the lakes reported that inadequate law enforcement and visitor protection causes an unwillingness in visitors to pay use fees, a finding which reconfirms a previous Corps study.<sup>8</sup>

If the law enforcement and visitor protection were improved, the majority of Corps lakes reported that this feature would increase facility usage, and, more significantly, 70 percent of the respondents reported that improved law enforcement and visitor protection would increase the users willingness to pay use fees.

The impact of these findings, while probably not new to the Corps, should serve to reaffirm the currentness and importance of the issue of adequate law enforcement and visitor protection for Corps decision-making.

The overall status of the visitor protection problem at Corps lakes can be generally summarized as follows:

- A reasonably significant level of criminal activity is present at the majority of the Corps of Engineers lakes.

- The nature of criminal activity is analogous to the national trends for index crimes (Uniform Crime Report) in that:
  - Property offenses are significantly the most prominent.
  - The majority of the criminal activity is located at lakes near urban areas or which attract large numbers of urban residents.
  - A large percentage of actual crime is unreported.
- The estimated cost of vandalism and other damage to the man-made and natural environment exceeds \$14 million annually.
- Criminal activity is most likely to occur:
  - at a developed area of a largely attended urban lake,
  - during the summer,
  - on the weekend (usually Saturday), and
  - between the hours of 8 p.m. and 12 p.m.
- The actual level of crime cannot be determined because of confusion on the part of victims as to which authorities to report the offense to and a lack of reciprocal reporting between local/state authorities and the Corps.
- The low level of citation issuance indicates that Corps rangers could be more productive and increased in numbers of ranger personnel
- Preventive patrol by local and state peace officers is generally unsystematic and below an adequate level to ensure immediate response to emergencies.
- Corps equipment, related to visitor protection, is limited.

A recent analysis conducted by PRC/PMS will provide a final reference point for these findings. This analysis was performed for the American Park and Recreation Society, and the National Recreation and Park Association on their National Survey of Vandalism, Crime and Violence in park and recreation areas. Over 340 park and recreation organizations in the country responded to the survey.

The conclusions revealed a completely similar trend to the current findings at Corps lakes. To summarize the APRS study, PRC/PMS concluded the following from the data:

- Crime is more prevalent and of a more serious nature in urban parks.
- Vandalism committed in urban parks is far more costly than in other areas.

- The major crimes in all park and recreation areas are property crimes.
- Crimes are most likely to occur:
  - in open park and playground areas of largely attended, urban parks,
  - during the summer and spring, and
  - in the evening hours.

These findings provide confirmation that the crime and vandalism found at Corps lakes is typical of a trend throughout the nation. The APRS study also revealed a lack of coordination between park and recreation agencies and local law enforcement and a noticeable amount of crime remaining unreported.

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## CHAPTER 7

### ANALYSIS OF THE LOCAL LAW ENFORCEMENT AND CORPS RANGER MANPOWER AT THE LAKES

#### A. Current Staffing Levels

Most law enforcement management studies analyze an agency's manpower in terms of workload and productivity. Criteria used in this assessment generally includes patrolmen per beat, calls for service, response time, caseload per investigator, etc. Similar criteria, while present in a limited capacity and form in the Corps organization, nonetheless, lends itself to an internal comparison of manpower utilization. The data in Table 7-1 is presented according to a division of Class A lakes using attendance as the main variable; the lakes are separated as follows: (1) urban lakes with attendance over one million, (2) rural lakes with attendance over one million, (3) urban lakes with attendance under one million, (4) rural lakes with attendance under one million, and (5) all Class B lakes.

As the table reflects, recreation use of the A lakes accounted for approximately 75 percent of the Corps annual attendance figures. Recreation use at the urban and rural lakes with attendance over one million accounted for 62 percent of the total alone.

The staffing at the lakes presents a similar situation. The lakes with attendance over one million are staffed with 68 percent of the total compliment of permanent rangers. While it is apparent that these largely attended lakes contain the majority of the rangers, the rangers at these lakes also reflect a significantly higher level of productivity than the other lakes. Combining written warnings with citations, it is apparent

TABLE 7-1

CHARACTERISTICS OF CORPS OF ENGINEERS LAKES,  
CLASSIFIED BY ATTENDANCE

| Class of Lakes                                | Number | Attendance  | Land Area | Corps Developed Areas |       | Number of Rangers |           | Total Infractions | Percent of Lakes With Law Enforcement Problem |
|-----------------------------------------------|--------|-------------|-----------|-----------------------|-------|-------------------|-----------|-------------------|-----------------------------------------------|
|                                               |        |             |           | Day                   | Night | Permanent         | Temporary |                   |                                               |
| Total A Lakes                                 | 128    | 236,381,900 | 3,868,857 | 735                   | 781   | 313               | 598       | 9,764             | .54                                           |
| Average                                       |        | 846,730     | 30,225    | 5.7                   | 6.1   | 2.45              | 4.67      | 76.3              |                                               |
| Urban A Lakes With Attendance Over 1 Million  | 32     | 114,797,400 | 964,311   | 237                   | 314   | 118               | 232       | 3,423             | .69                                           |
| Average                                       |        | 3,587,418   | 30,135    | 7.4                   | 9.8   | 3.69              | 7.25      | 107.0             |                                               |
| Rural A Lakes With Attendance Over 1 Million  | 39     | 82,578,900  | 1,565,988 | 316                   | 243   | 94                | 227       | 3,716             | .54                                           |
| Average                                       |        | 2,117,408   | 40,154    | 8.1                   | 6.2   | 2.41              | 5.82      | 95.3              |                                               |
| Urban A Lakes With Attendance Under 1 Million | 11     | 5,694,600   | 127,406   | 17                    | 35    | 17                | 26        | 503               | .55                                           |
| Average                                       |        | 517,691     | 11,582    | 1.5                   | 3.2   | 1.55              | 2.36      | 45.7              |                                               |
| Rural A Lakes With Attendance Under 1 Million | 38     | 20,866,700  | 963,346   | 105                   | 129   | 64                | 94        | 1,421             | .47                                           |
| Average                                       |        | 549,124     | 25,351    | 2.8                   | 3.4   | 1.68              | 2.47      | 37.4              |                                               |
| Total B Lakes                                 | 83     | 26,151,500  | 553,663   | 136                   | 37    | 7                 | 17        | 66                | .29                                           |
| Average                                       |        | 315,078     | 6,752     | 1.6                   | .4    | .08               | .20       | .80               |                                               |

(Source: PRC/PMS)

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that the rangers at the lakes with attendance over one million are responsible for producing 73 percent of all recorded infractions.

A closer analysis, reflected in Table 7-2, reveals that an average of 3.69 rangers working the urban lakes with attendance over one million are writing and processing 107 infractions annually or an average of 29.0 per ranger. This workload is exceeded by the rangers at the rural lakes with attendance over one million where an average of 2.41 rangers per lake are writing and processing 95.3 infractions, for an average of 39.5 infractions per ranger. Placing this analysis in perspective, approximately 85 percent of all infractions are committed during the summer season with the majority of these occurring on weekends. Thus, it can be safely stated that even at these largely attended lakes the rangers are averaging one written infraction per day with the smaller lakes producing even less.

Comparing this finding to the number of recreation visitors reveals an interesting point. The data in Table 7-2 reveals that peak weekend attendance during the season at the urban and rural lakes with attendance over one million is between 25,418 and 28,148 per ranger. This would mean that out of this number only one person committed an infraction. While these averages obviously contain many extremes, both high and low, it is fairly supportive of the field survey findings that Corps rangers are overwhelmed by visitors and as a result are not capable of properly managing resources and people. This frustration, in terms of not being able to dent the problem, is reflected by the low output. Additionally, the lack of backup management support and "clout" plays a role in diminishing the rangers productivity.

In essence the rangers are shying away from the problem or at best relying on verbal warnings. This situation is also apparent, as revealed by Table 7-2, in the finding that the average ranger at the largely attended lakes has between 4.7 and 6 well-developed areas and 8,172 to 16,659 acres to surveil for proper use by recreationists.

CORPS OF ENGINEERS LAKES,  
CLASSIFIED BY ATTENDANCE, DEPICTING RANGER WORKLOAD

| CLASS                                                 | AVERAGE # OF<br>PERMANENT<br>RANGERS<br>PER LAKE | INFRACTIONS<br>PER LAKE | INFRACTIONS<br>PER RANGER | ANNUAL<br>VISITORS<br>PER RANGER | VISITORS (1)<br>ON PEAK<br>WEEKEND<br>PER RANGER | ACRES<br>PER RANGER | DEVELOPED<br>ACRES<br>PER RANGER |
|-------------------------------------------------------|--------------------------------------------------|-------------------------|---------------------------|----------------------------------|--------------------------------------------------|---------------------|----------------------------------|
|                                                       |                                                  |                         |                           |                                  |                                                  |                     |                                  |
| TOTAL A LAKES                                         | 2.45                                             | 76.3                    | 31.2                      | 755,210                          | 21,852                                           | 12,361              | 4.8                              |
| URBAN A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 3.69                                             | 107.0                   | 29.0                      | 972,859                          | 28,148                                           | 8,172               | 4.7                              |
| RURAL A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 2.41                                             | 95.3                    | 39.5                      | 878,499                          | 25,418                                           | 16,659              | 6.0                              |
| URBAN A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 1.55                                             | 45.7                    | 29.6                      | 334,976                          | 9,692                                            | 7,494               | 3.0                              |
| RURAL A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 1.68                                             | 37.4                    | 22.2                      | 326,042                          | 9,433                                            | 15,052              | 3.7                              |
| TOTAL B LAKES                                         | 0.08                                             | 0.8                     | 9.4                       | 3,735,928                        | 108,093                                          | 79,095              | 24.7                             |

(1) ANNUAL x 0.62 = SUMMER  
SUMMER x 0.70 = WEEKEND TOTAL  
WEEKEND TOTAL ÷ 15 = PEAK WEEKEND

(Source: PRC/PMS)



It is necessary to explain at this point that these lakes also utilize the assistance of seasonal or temporary employees, generally below the equivalent GS-4 level, for purposes of fee collection, tour guides, and litter clean-up. Corps regulations state that these temporary personnel are not to be given citation authority, and, although the study team found many that were, these assistants are generally less trained or inclined to promote visitor protection than the rangers.

Although the study team received an accurate accounting of the number of temporary employees, as reflected in Table 7-1, it was impossible to determine for each lake the working hours, extent, and purpose of these employees. It was apparent that in the rural, southern lakes, the temporaries were providing more visitor protection than the permanent rangers or local law enforcement. This was not often the case, however, and as the norm could not be developed, temporary employees were not emphasized. They will play a role in a further discussion.

Improvements in the manpower situation will be discussed in Chapter 9. The remaining sections of this chapter will be devoted to an analysis of the costs of visitor protection.

#### B. Costs of Current Law Enforcement

Further analysis into the Corps visitor protection problem revealed the cost of current services, both by the Corps and local law enforcement. The Corps operation shall be discussed first.

##### Corps of Engineers

As previously stated, while the statistics do not reveal the findings that the rangers are maximally productive, in terms of objective criteria such as written infractions, the data and site visits thoroughly revealed that the Corps ranger staff was substantially deficient in number.

In 1973 the Corps was spending over one-third of a ranger's salary on visitor protection. Based on an average working scale (GS-5

salary) of \$8,400 per year plus 30 percent benefits, total salary for a ranger is approximately \$10,920 per year. The self-report questionnaires revealed that the Corps was spending between 40 and 60 percent of ranger time on visitor protection and patrol during the summer and 10 to 20 percent the rest of the year. This means that, based on these percentages, the Corps was spending between \$598,143 and \$1,025,388 on direct personnel salaries of permanent personnel for visitor protection. Additionally, the temporary ranger program contributes half its time to visitor protection related activities. Assuming a figure of approximately \$2,000 per year for the average temporary, this comes to \$598,000 annually for visitor protection. Adding this figure to the converted percentages of time calculated on the permanent rangers salary, we arrive at a figure of between \$1,196,143 and \$1,623,388 spent by the Corps on personnel expenditures for visitor protection.

As mentioned, these figures are only personnel related and only from the Class A lakes. Another assessment of visitor protection expenditures was revealed by the self-report questionnaires. The lake managers were asked to estimate the amount of money they were spending on visitor protection and security from all budget items including personnel, operating expenses, contract maintenance, construction, and equipment. A large sample of the A lake respondents revealed an average of \$30,000 per lake spent on visitor protection annually. This amounts to a total expenditure in excess of \$3.8 million. Assuming the major portion of this figure is for personnel salaries, this extrapolation is slightly higher than the previous one. Adjusting the calculations, the total expenditure for visitor protection and security is between \$2.0 and \$3.2 million annually. Adding to this figure, an approximation of \$100,000 to \$150,000 for the B lakes, which are minimally staffed and barely developed, the total for Corps of Engineers annual expenditures on visitor protection is between \$2.1 million and \$3.35 million. This amounts to approximately 15-20 percent of the Corps' annual O&M expenditure for recreation.

This figure is still a bit shy of the total cost, however. Corps overhead, which the managers did not calculate into their estimates, boosts the cost figures. Additionally, federal magistrate expenditures, while not subsidized by the Corps, also increases the overall federal cost of the visitor protection program. Considering the low number of citations, the Corps is not significantly impacting the magistrates workload.

Adjusting the total, in lieu of these additional expenses, the study team has found that the cost to the federal government for the current Corps of Engineers visitor protection services is between \$3 and \$4 million annually. In comparison, in fiscal year 1971-1972, the National Park Service (NPS) estimated that \$10,942,000 was spent for police protection services in the national parks (exclusive of the U.S. Park Police operations). Comparing these figures with annual attendance, NPS is spending almost four times more per capita than the Corps of Engineers for visitor protection.

#### Local Law Enforcement

One of the most difficult questions to answer in this study was a determination of the level and corresponding cost of services provided by local law enforcement at Corps of Engineers lakes. While the research team surveyed enough lakes to draw conclusions, the complexity of the findings in this area was extreme. The variance alone in personnel salaries throughout the country is overwhelming not to mention the multiplicity of law enforcement agencies with jurisdiction on and around the Corps lakes. Nonetheless, the PRC/PMS extrapolations, while far from precise, are felt to reflect the current cost of service to Corps lakes.

The cost information in this section was compiled from the site visits, questionnaires, and selected phone surveys conducted with state and local law enforcement agencies providing various degrees of law enforcement at Corps lakes. Table 7-3 clearly represents the findings

TABLE 7-3  
LOCAL LAW ENFORCEMENT EXPENDITURES  
AT CORPS OF ENGINEERS LAKES

| Class of Lake                                   | Local Law Enforcement Expenditures | Total                   |
|-------------------------------------------------|------------------------------------|-------------------------|
| Urban A lake with attendance over one million   | \$100,000-\$150,000                | \$3,200,000-\$4,800,000 |
| Rural A lakes with attendance over one million  | \$35,000-\$45,000                  | \$1,365,000-\$1,755,000 |
| Urban A lakes with attendance under one million | \$15,000-\$20,000                  | \$165,000-\$220,000     |
| Rural A lakes with attendance under one million | \$10,000-\$15,000                  | \$380,000-\$570,000     |
| All B lakes                                     | \$5,000-\$10,000                   | \$415,000-\$830,000     |
| <u>*Subtotal</u>                                | \$5,675,000 to                     | \$8,355,000             |
| Overhead, court, and other related costs - 20%  |                                    |                         |
| <u>Grand Total</u>                              | \$6,810,000-\$10,026,000           |                         |

\*Includes \$150,000-\$180,000 for the unclassified lakes.

(Source: PRC/PMS)

that at the average urban A lake with attendance over one million, local and state law enforcement agencies are spending between \$100,000 and \$150,000 annually on services provided at Corps lakes; expenditures are between \$35,000 and \$45,000 at the rural Class A lakes with attendance over one million; expenditures are between \$15,000 and \$20,000 at the urban A lakes with attendance under one million; expenditures are between \$10,000 and \$15,000 at the rural A lakes with attendance under one million; expenditures are between \$5,000 and \$10,000 at the B lakes; and expenditures are between \$150,000 and \$180,000 for the A lakes that were unclassified. Thus, with overhead costs, and other related expenses, state and local law enforcement agencies and governments are spending between \$6,810,000 and \$10,026,000 annually to provide services at Corps of Engineers lakes.

As the table reveals, local law enforcement is spending on the average over twice as much as the Corps of Engineers to provide law enforcement services at the Corps lakes. As with the previous cost estimates, the cost of overhead, including administrative paper work, communications, and other costs, in addition to expenditures for booking, processing and detaining suspects arrested on Federal property, court costs and probation costs, increases the figure for law enforcement and visitor protection. Considering the figures also do not include C and D lakes, this is an accurate indication of the amount of free service rendered recreation users and the Corps. This service includes:

- Water surface patrol
- Radio dispatching
- Handling of serious misdemeanor and felony calls for service
- Follow-up investigation
- Traffic accidents
- Booking and detention of suspects.

The major portion of free service at Corps lakes is rendered by state and local water surface patrols. As Table 7-4 reveals, only

TABLE 7-4

AGENCIES PROVIDING PATROL  
ON U.S. ARMY CORPS OF ENGINEERS WATER SURFACE

| CHARACTER<br>OF LAKE | CORPS OF<br>ENGINEERS | STATE      | LOCAL<br>COUNTY<br>OR CITY | OTHER<br>FEDERAL | CORPS<br>AND<br>STATE | CORPS AND<br>LOCAL<br>CITY-CO. | CORPS<br>STATE<br>CITY-CO. | CORPS<br>STATE<br>OTHER FED. | STATE<br>AND<br>CITY-CO. | OTHER      |
|----------------------|-----------------------|------------|----------------------------|------------------|-----------------------|--------------------------------|----------------------------|------------------------------|--------------------------|------------|
| URBAN                | 6                     | 23         | 8                          | 2                | 20                    | 6                              | 5                          | 4                            | 3                        | 20         |
| RURAL                | 2                     | 30         | 8                          | 3                | 42                    | 2                              | 7                          | 12                           | 4                        | 31         |
| TOTAL<br>PERCENT     | 8<br>3.4              | 53<br>22.3 | 16<br>6.7                  | 5<br>2.1         | 62<br>26.0            | 8<br>3.4                       | 12<br>5.0                  | 16<br>6.7                    | 7<br>2.9                 | 51<br>21.4 |

(Source: PRC/PMS Self-Report Questionnaire)

eight Corps lakes autonomously provided water surface patrol. At 34 percent of the lakes the Corps does not provide any service on the water and at 41 percent of the lakes the Corps is assisted by state, local, or other federal water patrols. The study team found the state and local water surface patrols to be well-staffed and in most cases carrying on a far more active visitor protection program on the lakes surface than the Corps rangers. Typically, the state and local patrols were trained peace officers with full police authority.

Thus, the study found that state and local governments and law enforcement agencies are spending approximately \$7 million to \$10 million annually to provide a law enforcement and visitor protection at Corps of Engineers lakes.

In conclusion, it has been revealed, that the overall costs provided by the federal government and state and local governments for the purpose of providing visitor protection services for recreation users at Corps of Engineers lakes is somewhere between \$10-14 million annually. If the cost of crime and vandalism, discussed in the previous chapter, is considered, then the amount of money lost due to crime and vandalism at the Corps lakes and the amount spent on overall visitor protection services at the Corps lakes combined exceeds \$25 million.

Chapter 8  
STANDARDS FOR VISITOR PROTECTION

A. Introduction

One of the primary objectives of this study was to determine visitor protection requirements at Corps of Engineer lakes. In the Description of Work Segment of the contract between PRC/PMS and the Corps of Engineers this objective is stated as follows:

The general requirement of the study is to determine the type and level of need for visitor protection at Corps of Engineers lakes in relation to preventative law enforcement, misdemeanor and felony.

Specifically, the contract requires PRC/PMS to:

- Define levels of adequate visitor protection;
- Establish standards to achieve adequate visitor protection services

The purpose of this chapter is to address these issues directly in order to establish a conceptual framework with which to assess the cost and perceived effectiveness of the available alternatives defining an "adequate" level of visitor protection.

This, by far, is the most difficult question faced by law enforcement administrators. The term "adequate" can only be understood in terms of some reference point. For example, if every visitor to a recreation project was assaulted or otherwise victimized by crime, we would have no trouble in stating that existing visitor protection systems are clearly "inadequate." On the other hand, if no visitor was victimized by crime,



we could unequivocally state that existing visitor protection systems are clearly "adequate." However, the issue is complicated by the fact that the term "visitor protection" encompasses more than simply protection from crime.

The term is also understood to include: protection from hazardous conditions; protection of environmental and recreation resources from intended and unintended destructive acts by users; provision of emergency aid and rescue services; provision of information services; enforcement of appropriate traffic, boating, wildlife protection, and other laws and user regulations; and enhancement of the visitors sense of security. In short, the term "visitor protection" embodies most of the traditional services provided by law enforcement agencies as well as those services provided by recreation and resource management agencies.

Further, our field studies indicate that criminal incidents of widely varying frequency and severity were reported at virtually every site visited. Thus, we are faced with a relatively ambiguous situation in which no "pure" case dominates (e.g., is one crime too many? Are one hundred crimes too many?). Additionally, the high rates of vandalism to government property reported at a significant number of recreation projects visited requires serious consideration in assessing the question of visitor protection.

The first point to be considered in assessing the quality of visitor protection is that of the legal liability of the landowner or the person that controls the land. Opinions relating to this issue have been rendered to the Bureau of Land Management by Regional Solicitors as follows:

Professor Prosser, an eminent authority on the Law of Torts, points out that the great majority of courts now accept that the basis of liability to a visitor is not any economic benefit to the occupier of premises, but a representation to be implied when he encourages others to enter to further a purpose of his own, that reasonable care has been exercised<sup>1</sup> to make the place safe for those who come for that purpose.

More specifically, the solicitor states that:

The occupier is not an insurer of the safety of invitees and his duty is only to exercise reasonable care for their protection. He must not only warn the visitor of dangers which he knows, but also must inspect the premises to discover possible defects. There is no liability, however, for harm resulting from conditions from which no unreasonable risk was to be anticipated, or those which the occupier did not know and could not have discovered with reasonable care . . . Likewise, in the usual case, there is no obligation to protect the invitee against dangers which are known to him.

Thus, from the traditional legal point of view it seems reasonably clear that the Corps of Engineers has no specific requirement, other than the exercise of reasonable care, to "protect" visitors to its recreation projects.

However, this is not to say that the absence of tort liability is the only consideration in assessing visitor protection requirements. Most Corps projects have been justified to Congress on the basis of multiple use--wherein recreation is one such use. Thus, the Corps has a basic responsibility to Congress to assure that recreation projects are managed in such a way as to make them safe and attractive places for citizen users. This responsibility has been codified in Article 327.1 of Title 36, where the Corps policy is: "to provide the public with safe and healthful recreational opportunities within all water resource development projects administered by the Corps of Engineers." Also, it must be recognized that all appropriate state and federal laws apply to persons utilizing federally-administered recreation projects. An enforcement mechanism must therefore exist to assure that such projects do not become enclaves where illegal behavior can be indulged in without fear of arrest. To this end, as a professional, administrative agency, the Corps of Engineers has a basic responsibility to the public to assure that an adequate level of law enforcement is available at its projects.

With this background in mind, it is then necessary to sharpen our definition of the term "visitor protection." Obviously, the first

question to be addressed here is an identification of just what it is we want to "protect" the visitor from. To answer this question, we must know why the visitor enters a Corps recreation project and what he does while he is there.

Recreation is a fundamental human need. Recreation involves voluntary or self-motivated activity that is intended to enrich the lives of individuals. In reviewing the types of recreation activities performed at Corps of Engineer developed projects, we find that the following uses predominate: (1) swimming; (2) overnight camping; (3) boating; (4) fishing; (5) water skiing; (6) picnicking; (7) hiking; (8) family and group outings; (9) natural resource and wildlife education; (10) use of off-road vehicles (mini-bikes, motorcycles, dune-buggies and four-wheel drive vehicles); (11) sports activities.

At the same time, since most Corps projects are multiple-use facilities, parts of the project are used for flood control, power generation, fish hatcheries, and a variety of other socially useful purposes. These other uses are mentioned here because their existence predicates that certain areas of a project be designated as "off limits" for public usage, either to protect the environment or to keep the public out of potentially dangerous areas.

To preserve the natural beauty and wildlife of a project, the Corps has designated and developed certain areas of the project for public usage. Thus, in a large water resource project with a limited number of developed areas, there is a built-in usage capacity. This means that recreation users are, in a sense, competing for limited resources. These developed areas, such as parks, beaches and playgrounds, are visited by persons seeking a meaningful, personal, recreation experience. Consequently, the impact of antisocial behavior of certain users may be more seriously offensive or impair satisfaction of recreation users than in other areas of circumstances. This discussion brings us to our first definition of what is meant by visitor protection.

The concept of visitor protection must encompass the ability of recreation users to enjoy their visits without being harassed, victimized, or unduly disturbed by persons with criminal intentions or by others who have utter disregard for the rights of others. Since, as part of the "social contract," we have all surrendered the right of personal retaliation to legally constituted authority, "society," in this case the government, has a moral responsibility to assure that its agents of law enforcement are available at recreation projects it controls.

Next, the concept of visitor protection must encompass, to a certain extent, the protection of a visitor from his own actions that could endanger himself and/or others. Examples here might include careless or blatantly reckless operation of speedboat, a motor vehicle, or off-road vehicle; trespassing in a dangerous area; careless building of fires; diving in water with hidden obstructions.

Also the Corps manages and, in a sense, acts as a trustee of the public to preserve and protect land, wildlife and water resources in the public domain for present and future generations. To accomplish this mission the Corps establishes protective regulations that require an enforcement presence to assure that such regulations are respected.

Finally, and as earlier noted, Corps of Engineer projects involve multiple uses. The dams and associated facilities (e.g. power lines, fish runs, locks, buildings, and equipment) are extremely expensive and vital components of the project. These facilities must be protected from vandalism, sabotage, and other advertent or inadvertent destructive acts. The potential for catastrophic damage exists if, for example, a major dam is dynamited or rendered inoperative. Such facilities must be guarded or otherwise protected as yet another facet of "visitor protection."

In summary, the final definition of visitor protection must include consideration of (1) protection of lawful recreation users from the anti-

social or criminal acts of other visitors to the project; (2) protection of the user from inadvertent or advertent acts of his own that are dangerous to himself and/or others; (3) protection and preservation of the environmental resources of the project; and (4) protection of man-made facilities at the project from vandalism, sabotage, or other destructive acts.

With this definition of visitor protection as our starting point, we must now establish some means of assessing the question of "adequacy" of visitor protection.

To begin this discussion it will be helpful to review how law enforcement manpower requirements and standards of service have been developed and applied in the past. Following this review, PRC/PMS will relate the best principles of such methods to the problem of the establishment of "adequate" levels and standards of visitor protection at Corps projects.

B. Historical Review of Methods for Establishing Manpower Requirements and Service Levels for Law Enforcement Agencies

There are two separate but interrelated problems to be addressed in this section. The first problem is to review the methods by which law enforcement agencies establish manpower needs. The second problem relates to defining levels of service. The objective of this section is to review and critique current methodologies for addressing these issues and to determine their relevance to the purposes of this study.

The establishment of a "formula" to determine law enforcement officers required to police American states, counties, and cities is, as yet, an unresolved technical problem. The primary problem that bars the development of such a formula is the inability to establish a relationship between police activity and resulting phenomena. Our review of the literature shows that there is virtually nothing but a priori judgments as to the extent that police services affect resulting events. As one prominent administrator (Lloyd Ficklin) stated in his criticism of attempts to devise a general manpower formula:

I think it is a wish to have a simple magic persuader to use on a City Council (or other legislative group) to get a specific level of manpower--usually higher--for a department.

Ficklin further notes that there is no such thing as a general formula for determining manpower needs that can be used on a uniform national basis because of the importance of local factors such as geography, crime rate, fiscal resources, service orientation, department policies, and community attitude. Given these factors it is essential that we define certain of the terms to be used in this section. These terms are "manpower requirements," "allocation," and "distribution." We use the terms as follows:

- Manpower Requirements: The total number of persons needed to achieve an optimum level of police service in a locale both in terms of effectiveness and efficiency.
- Manpower Allocation: Overall partition of available officers by function (e.g., administration, patrol, support services, or investigational).
- Manpower Distribution: Assignment of a given number of personnel according to chronological and geographical factors as they relate to workload.

Surprisingly, it has been the latter concept which has received the heaviest attention of law enforcement researchers. Studies by Vollmer, Gaunt, The Los Angeles Police Department, Shumate and Crowther, Larsen, and McEwen, among others are indicative of the state of the art in this area.<sup>3</sup>

The resource allocation question has been addressed in very few studies. The work of Fennessy, et al, and the Chicago Police Department represents virtually the only findings in this area.<sup>4</sup>

The central question of manpower requirements has generally been ignored because of its ambiguity. Our review of the literature on this issue indicates that certain very theoretical studies are available,<sup>5</sup> but the only practical studies reviewed by PRC/PMS include Michigan State University,<sup>6</sup> and the British Home Office.<sup>7</sup>

The Michigan State study reviewed existing methods of determining manpower requirements. This study notes that "... no method is free from arbitrary, subjective judgments, some of the methods that have been and are being used by police departments to justify manpower are completely inadequate except as psychological levels which can be used to move administrators, naive taxpayers and councilmen." (p.3)

Specifically, the study points out that the most prevalent approaches used are (1) comparison of police per population ratios, and (2) comparison of crime rates. Each method will be discussed below.

#### Comparison of Police per Population Ratios

Utilization of this method involves a comparison between communities of approximately similar population and number of police officers per 1,000 population. It is usually expressed as a ratio. The current national average is 2.0 officers per 1,000 computed on an annual basis. The MSU study cited earlier points out that this method is based on false assumptions as follows:

First, it ignores community differences such as social and economic conditions, street construction and design, population characteristics, culture and customs of the people, and finally, the characteristics of the courts and other agencies involved in the processes of criminal justice.

This method also assumes equal competency on the part of police officers. Because of the wide variation in recruitment, selection and training standards, we know that this assumption is totally invalid. Finally, this method assumes that what is sufficient for one department is sufficient for another. By way of example, the National Commission on Productivity analyzed data on police per 1,000 population and found that:

. . . wide dispersion exists among cities of like size, much larger than the dispersion as a function of population size. For example, among cities of 60,000 to 70,000 population, there is an almost four-fold variation (0.7 to 2.7 employees per thousand), with a mean of 1.6 employees per thousand.

Among cities of 400,000 to 600,000 population, there is a two and a half times variation (1.4 to 3.6 employees per 1,000). Although, larger cities have a larger number of employees per capita on the average, there are many small cities that have more police per capita than larger cities.<sup>8</sup>

As this discussion indicates, the use of comparative ratios of police per 1,000 population among like-sized cities leaves much to be desired. The attractiveness of this measure rests in its ease of computation; however, it is clear that it lacks any objective validity.

#### Comparison of Crime Rates

This is another popular method of manpower justification used by many U.S. police agencies. This method starts with a base period and assumes that available manpower at that time was sufficient to deal with the crime problem. Fluctuations in subsequent crime rates are analyzed and are used to justify requests for additional manpower. The earlier referenced Michigan State Study points out the following deficiencies of this method:

...it does not take into consideration other aspects of the police duties which may in some instances be more important than crime. It is not at all unusual to find a police department spending eighty to ninety percent of its time performing services for the public; therefore, they could spend a disproportionate amount of time on crime and cut the rate, yet still need more manpower.<sup>9</sup>

Additionally, crime statistics can be manipulated even without the user being dishonest or in violation of procedures.

With respect to this latter point, enormous rate changes can occur when improved reporting procedures are instituted. Recent research clearly indicates that the actual, as opposed to the reported, crime rate is at least two to five times higher.

The Home Office Police Research and Development Branch conducted an extensive study in 1967 and 1968 entitled Assessment of Police Establishment by Formula. The state purposes of this research were to:



- Analyze the apparent differences in standards between one force and the other.
- Examine the factors which have a bearing on police establishments and to select those which are reliable and measurable.
- Create a common standard of manning based on acceptable factors.

It is first worth quoting several of the major assumptions of this study before discussing its findings. With respect to "adequate" police protection, the authors of this study stated:

Although in their 1962 report the "Royal Commission on Police" did not attempt to define precisely what is meant by an "adequate" standard of policing, it accepted the view that in most cases the existing establishment represented an up to date assessment of the total number of police officers required to provide adequate police protection. (p. 3)

. . . In the absence of a more objective criterion we have no alternative but to take such generally accepted standards of policing as a basis on which to build a formula. (p. 3)

In short, this group found that there is at present "no absolute standard of policing, a formula is not likely to provide a single number of men required by a force at a particular time."

The study goes on to point out the reasons for this situation. As they note, some towns have always enjoyed a high standard of policing because they have strong community spirit, adequate resources, a pleasant environment, and so forth. On the other hand, other communities have always been short of policing because of the poverty of the city, even balances between political parties, (which inhibit both parties from supporting actions that lead to tax increases), or an inability to attract a sufficient number of able police recruits because of the unattractive characteristics of the town combined with high wage rates in local industry. They conclude that:

. . . every community has therefore grown accustomed to its own standard of policing and "adequate" policing now means different standards of protection to citizens in different parts of the country. (p. 16)

The study group developed a series of "formulae" for computing manpower requirements based primarily on population, crime rate, road miles, and total acreage. Three types of formulae are presented for large urban, suburban, and rural areas. After reviewing these methods in detail, it is concluded that they are based on false assumptions and are invalid for our purposes. This is not to say that they are wrong, only that they represent the state of the art at the present time.

To develop a "truly" objective manpower requirement for law enforcement, it would be necessary to locate (in economic terms) the point of diminishing manpower returns. This "point" is where the amount of social and monetary costs incurred by adding an additional police officer is greater than the benefits derived from his or her presence. As John Angell has noted in commenting on this issue:

The trouble with attempting to apply this is the impossibility of isolating all the social and economic costs involved. Since this is not presently possible, it is impossible to determine the point of diminishing returns . . .

In the absence of such a measure, many theorists recommend basing manpower requirements on weighted variables such as:

1. Land area
2. Population
3. Geography
4. Number of streets
5. Nature of street traffic
6. Numbers of pedestrians
7. Number and type of schools, churches and hospitals
8. Number of poolrooms, bowling alleys, saloons and clubs that need unusual police protection
9. Amount of heavy industry
10. Social and cultural conditions
11. Nationality and composition of population
12. Age and sex of population
13. Proportion of males to females and married to unmarried.

The trouble with this method is that these are subjective factors thought to have some relationship to the demand for police services. The few studies available that have attempted to correlate police service demand with social and demographic variables are generally ambiguous. For example, the Rand Corporation in studying the relationship of demand for service to socioeconomic data in 30 large cities found:

. . . the most disturbing and surprising results occur for the correlation of Index Crimes per capita with the demographic variables (percent non-white, percent poor under \$3,000, percent age 15-29, percent moving within past two years). No significant pairwise correlations exist at all.<sup>10</sup>

The Urban Institute Report on police productivity studied this question and produced different results. They found that:

In no case did the socioeconomic variations explain more than a small part of the effectiveness and productivity variations.<sup>11</sup>

Again, based on these results, aside from the fact that no comparable studies are available for recreation areas, we must conclude that the use of this method is simply not applicable.

The most common method used by sophisticated U.S. police agencies to estimate needed manpower requirements is the evaluation of past workloads. For example, if in year "X", the police agency investigated 2,000 traffic accidents, and each accident required 2 man-hours to fully investigate, then we know that 4,000 man-hours are absolutely necessary to process this type of event. In justifying its budget request the police agency then projects the expected number of accidents for the coming year, applies the workload factor and computes necessary manpower needs. However, such a method also has some major conceptual difficulties. The Michigan State study mentioned earlier states that this method is based on several assumptions, which, if wrong, render the estimates inaccurate:

- The department is administratively and organizationally sound (e.g., administrative overhead is at a minimum; the activities being used by the department are most effective in achieving the goals; and organizational relationships are proper).

- The most inexpensive methods of performing activities are being utilized (e.g., civilians and clerical personnel in place of officers where possible).
- Proper work routines and quality standards are established.

Basically, the workload measurement technique involves quantification of work to determine how much is performed in a given amount of time. Specific activities to be performed involve identification and measurement of work units (e.g., handling calls for service, providing information, services, security and regulatory inspections). The next step is to calculate the average servicing times and then to estimate the number of work units that can be expected to occur. The two figures are multiplied to produce the total amount of work required in a given period of time.

The method is fraught with uncertainties, but is frankly the best method available at the present time. The chief difficulty with this method is that one always winds up with an unallocated portion of time which is arbitrarily labeled preventive patrol. Unfortunately, there are no objective standards for preventive patrol as well as considerable doubt that "preventive" patrol actually "prevents" anything. *JK*

There are, however, certain inescapable facts to be considered when establishing a police operation. These facts are as follows:

- To man one patrol officer position on one eight-hour shift, 365 days per year will require 1.68 man-years to account for days off, vacations, and sick time.
- To man one patrol officer position on two eight-hour shifts, 365 days per year will require 3.36 man years to account for days off, vacation, and sick time.
- To man one patrol officer position on three eight-hour shifts, 365 days per year will require 5.04 man-years to account for days off, vacations and sick time.

In addition, as Roy McLaren, a noted authority on police resource allocations and distribution, states:

Previous experience has shown that about one-third of an officers time on shift should be allocated to protect against the tendency for cases to occur in groups rather than to be spaced equitably throughout the tour of duty. An additional one third of an officers time should be available for repressive patrol activity, and the remaining one-third should be available to handle calls-for-service.<sup>12</sup>

These, then, are the basic considerations that must be addressed in reviewing and evaluating police manpower requirements.

Within the context of police manpower requirements, it is also necessary to review the state of the art as to standards of performance.

#### C. Standards of Police Performance

In the preceding section, the historical methods of establishing police manpower requirements were reviewed. However, even if such manpower needs could be established in an objective fashion, they are meaningless unless the manner in which such individuals perform their duties conforms to some standards of organizational and functional performance. In short, both manpower requirements and performance standards are inextricably related to each other. For example, the time requirements to perform a particular task are basically a function of what it is the officer does. What the officer does and how he does it can only be judged in terms of what activities are judged to be an acceptable level of performance. In turn, the number of officers available exerts a significant impact on the amount of time an officer has available to perform his duties.

There are no "objective" ways of establishing particular standards of police performance other than in relating such tasks to statutory requirements and on the basis of informed professional judgment.

In this regard, PRC/PMS has reviewed all available standards of police performance set by prestigious national groups as well as material developed by outstanding law enforcement agencies. The basic reference documents with respect to the police performance issue are as follows:

- National Advisory Commission on Criminal Justice Standards and Goals, The Police, (Chairman Chief Edward M. Davis), Washington, D.C., January 1973.
- The President's Commission on Law Enforcement and Administration of Justice, Police Task Force Report, Washington, D.C. 1967.
- The American Bar Association project on Standards for Criminal Justice, The Urban Police Function, Institute of Judicial Administration, June, 1973.
- O.W. Wilson and R. McLaren, Police Administration (3rd edition) McGraw Hill Book Company, New York, 1972.
- The Urban Institute, Part III: Measuring "Police Crime Control Productivity," in The Challenge of Productivity Diversity: Improving Local Government Productivity Measurement and Evaluation, Washington, D.C. 1972.
- The International City Management Association, Municipal Police Administration (6th Edition) Washington, D.C. 1969.
- National Park Service, "Proposed Activity Standards for Law Enforcement," Department of the Interior, National Park Service, 1974.

While there are other documents touching on police standards, those listed above are the most widely regarded and cited. Basically, all of these reports address two levels of the performance issue: 1) organizational and 2) functional. It is extremely important to note that all such standards are based on professional judgment supplemented by research evidence when available.

Rather than attempt to discuss the literally hundreds of individual standards, we will attempt to synthesize the primary areas of standards, particularly those we deem applicable to the provision of law enforcement/visitor protection services by the Corps of Engineers. These standards, as follows, begin with the phrase "a police agency should:"

- Fully acknowledge that the limits of police authority are prescribed by law and that there can be no situation which justifies extralegal practices.

- Fully acknowledge that there are times when force must be used in the performance of police tasks, but that there can be no situation which justifies the use of unreasonable force.
- Fully acknowledge that in their exercise of authority the police must be accountable to the public by providing formal procedures for receiving both commendations and complaints from the public regarding individual officer performance.
- Fully acknowledge the existence of the broad range of administrative and operational discretion that is exercised by all police officers. That acknowledgement should take the form of comprehensive policy statements that publicly establish the limits of discretion, that provides guidelines for its exercise within those limits, and that eliminate discriminatory enforcement of the law.
- Fully acknowledge in written police statements the important role of the news media and the need for the police agency to be open in its relations with the media. The agency should promote an aggressive policy of presenting public information rather than merely responding to local inquiries.
- Immediately develop short and long range goals and objectives to guide agency functions.
- Establish a formal inspection system to provide the police chief executive with the information he needs to evaluate the efficiency and effectiveness of agency operations.
- Adopt geographic policing programs which insure stability of assignment for individual officers who are geographically deployed.
- Make maximum effective use of state statutes permitting police agencies to issue written summonses and citations in lieu of physical arrest.
- Provide for access to police service and response to police emergency situations 24 hours a day.
- Not enforce local ordinances for the sole or primary purpose of raising revenue, and no income arising from enforcement should be earmarked specifically for any single enforcement agency.
- Have plans for the effective command and control of police resources during mass or civil disorders.
- Establish formal training programs in handling unusual occurrence control, administration strategy and tactics.

- Use generalist (patrol officers) wherever possible and not resort to any specialization before all other possibilities are considered.
- Immediately direct patrol officers to conduct thorough preliminary investigations and establish in writing priorities to insure that investigative efforts are spent in a manner that will best achieve organizational goals.
- Assign civilian personnel to positions that do not require the exercise of police authority.
- Consider employment of police reserve officers to supplement the regular force of sworn officers.
- Administer its own recruiting program directed exclusively at attracting the best qualified people with specific attention to the recruitment of college educated applicants.
- Employ a formal process for selection of qualified police recruits to include a written test of mental ability, oral interview, physical exam, psychological exam, and in-depth background investigation.
- Establish immediately a broad classification plan based upon the principle of merit.
- Require, as a condition of employment, a minimum of one year of college; by 1975, 2 years; by 1978, 3 years; by 1982, 4 years of college.
- Develop minimum curriculum requirements for mandatory training for police.
- Require certification as a police officer by the municipal police training commission in the state.
- All recruits (by 1975) complete a minimum of 400 hours of basic police training and a minimum of 4 months of field training with a sworn police employee who has been certified as a training coach.
- Provide a minimum of 40 hours of formal in-service training per year.
- Periodically evaluate the performance of all police employees.
- Assure that only the best qualified persons are promoted to higher positions.



- Establish formal procedures for the administration of internal discipline.
- Implement procedures to facilitate the making of a complaint alleging employee misconduct, whether that complaint is initiated internally or externally.
- Establish physical fitness standards for initial and continuing employment.
- Develop, as a sub-system of its communications system, a telephone communications component designed to reduce crime through rapid and accurate communications with the public.
- Immediately install a 24 hour two-way radio capability providing continuous communications capability between a communications center and field units.
- Assure that delay time from receipt of an emergency call to dispatch of field unit does not exceed two minutes; and six minutes in the case of a non-emergency call.
- Have the capability by 1975 to retrieve statewide criminal information and provide it to field personnel within three minutes for manual systems and 30 seconds for computerized systems.
- Insulate the police department from inappropriate pressures including such pressures from inside the organization.
- Insulate the police department from pressures to deal with matters in an unlawful or unconstitutional manner.
- Insulate the police administrator from inappropriate interference with the internal administration of his department.

These standards are all good and appropriate ones and must be adhered to if an effective police organization is to be created. In our research on standards, we have discovered that the National Park Service has developed activity standards to govern the conduct and operations of its enforcement personnel in recreation and park areas under its control. The primary standards used by this organization are discussed below. In reviewing these standards, it must be remembered that the NPS maintains a full-time, armed, full-police power law enforcement agency. The NPS standards are:

- Visitors and their property are made safe, and peace and public order is maintained and preserved.
- Law enforcement activities are formulated and executed in consonance with the fundamental purpose of the National Park Service.
- Park regulations consistently meet changing needs to assure relevancy.
- Law enforcement officers are familiar with the laws and regulations covering the area to which they are assigned.
- An effective working relationship is maintained with the Solicitors' Office, U.S. Magistrates, U.S. Attorneys; and Federal, state and local law enforcement and investigative agencies.
- Law enforcement problems are analyzed with a view toward seeking solutions other than enforcement actions.
- Inspection systems have been implemented which evaluate the effectiveness, record findings, and make recommendations for improvement of law enforcement activities.
- Investigations are made and appropriate action is taken of all alleged breaches of enforcement integrity, complaints against law enforcement officers, and reports of discontent of law enforcement actions.
- The law enforcement activity uses information and education as a primary means of gaining voluntary compliance with laws, rules and regulations.
- Enforcement actions are exercised with that degree of professionalism which does not impair the quality of the park experience the public rightfully expects.
- Regulation and applicable laws are applied uniformly with regard for the particular circumstances involved in each violation.
- Actions are commensurate with the acts of persons who deliberately, maliciously, or criminally violate the law, or who place the safety of others in jeopardy.
- Pursuit is confined to areas of jurisdiction except for a felonious offense.
- Officers clearly identify themselves when making an arrest or issuing a citation.

- Violations have been clearly identified and explained to the person or persons arrested, cited or warned.
- Persons arrested are properly warned of their constitutional rights to remain silent and to be represented by counsel, and all rights of the accused persons are fully preserved.
- All persons arrested are taken before the appropriate court without unnecessary delay.
- An NPS law enforcement officer knows that he is allowed to use any necessary force, including deadly force, to protect himself or other persons from death or serious injury. In such cases, it is immaterial whether the attacker has committed a serious felony, a misdemeanor or any crime at all.
- Chemical mace and/or batons are used only to capture or subdue dangerous violators of the law, or persons who present a danger to themselves or others.
- Handcuffs are used only on adult felony suspects, or persons who present a danger to themselves, the arresting officer or others.
- Reports are submitted promptly by the officer involved, of the use and the circumstances requiring the use, of defensive equipment (firearms, mace, batons, etc.), and an immediate investigation is made to determine justification of such action.
- Patrols are deployed so as to eliminate or reduce the opportunity for crime and misconduct, to prevent accidents, and to increase the likelihood of apprehending violators.
- Patrols are conducted in a random manner so the patrolmen cannot be expected at a certain place at a certain time.
- Patrols are emphasized in high accident and crime hazard areas.
- A plan is implemented to check the security of physical facilities and equipment.
- Discretion is properly exercised as to the type and amount of force necessary in making and maintaining an arrest.
- Conditions that are conducive to crime, accidents, and misconduct, or which in other ways may be hazardous to the public are reported and remedial action is taken.
- Patrol time is at least equal to the amount of time spent in investigating, reporting, testifying and otherwise providing service to the public.

- Patrolmen respond as quickly and safely as prudence permits when they are dispatched to public assistance calls, with due regard for traffic, weather and road conditions.
- Every known criminal action is investigated to identify, detect, and apprehend the offender, and when applicable, recover stolen property.
- The purpose of accident investigation is to find the causes and circumstances and to determine if enforcement measures or other remedial actions are required.
- Preventing future accidents is the motivating factor in accident investigations.
- Accident reports are prepared and submitted on all accidents.
- Only properly trained and qualified personnel are used for law enforcement purposes.
- Law enforcement officers are instructed and trained in progressive law enforcement procedures and practices to the extent necessary to exercise enforcement authority in accord with service standards.
- No new employees are assigned to law enforcement duties until they successfully complete the NPS Basic Law Enforcement Training Course.
- Present employees assigned to law enforcement duties have completed the NPS Basic Law Enforcement Training Course or equivalent training as approved by the Chief, Division of Law Enforcement, in the Washington Office.
- Every law enforcement officer receives at least 40 hours of in-service law enforcement training each year.
- Every law enforcement supervisor, including those who supervise seasonals, has successfully completed an NPS Supervisory Course, and every law enforcement supervisor receives at least 40 hours of in-service law enforcement training each year.
- Everyone in a law enforcement management position, including Superintendents, has successfully completed the NPS Law Enforcement Management Seminar.
- Every law enforcement officer is equipped with an IACP Police Reference Notebook.
- Park areas are capable of receiving requests for law enforcement services, recording the basic data, and promptly dispatching a unit to render service.

- A base station has two-way radio communications with all officers who are on patrol.
- The law enforcement radio system is used for emergency transmissions only when the system will allow radio contact with neighboring police agencies.
- Back-up systems are available in the event the base radio station malfunctions.
- Voice actuated recording devices record all radio transmissions.
- Patrolmen have access to the information in the National Crime Information Center.
- Plans are formulated to handle:
  - The loss of utility service (electric, telephone, etc.).
  - Accidents involving radioactive materials.
  - The removal of bombs or other explosive devices or materials.
  - Natural disasters; i.e., flooding conditions, storms, landslides.
  - The loss of normal water supplies.
  - Disorders that are beyond the capacity of the park staff.
  - Emergency medical care for large numbers of people.
  - Evacuation of the park.
  - Forest, building, or vehicle fires.
  - Visits of the President, foreign heads of state, or other important persons.
- All incidents, whether observed or reported, and whether of a serious or minor nature are promptly recorded on official forms.
- Officers convey to persons who report incidents that they are dealing with an alert, interested, capable and efficient public service organization.
- Reports are factual, accurate, complete, self-explanatory and tell of the action taken, current status of the incident, and anticipated actions, if any.
- The Division of Law Enforcement in the Washington Office keeps abreast of current conditions and issues guidelines and directives as necessary to achieve uniformity of procedures.
- The annual report from each area contains not only statistical data, but a written analysis of the means needed to upgrade law enforcement activities.

- Law enforcement officers project their ability and willingness to serve visitors with integrity, effectiveness, courtesy and diplomacy.
- All incidents requiring the need for law enforcement service are immediately assigned and investigated thoroughly and expeditiously by the unit or office having responsibility for action.
- Visitors are made aware that they have a personal obligation to provide some measure of protection for their property.
- Visitors and park and concession employees give their support in reporting unlawful conduct.
- Park employees and concessionaires have been made aware of methods of strengthening the physical security of their property and buildings.
- A plan has been implemented for the release of all public law enforcement information.
- Each law enforcement officer is able to provide, or direct a visitor to information concerning:
  - Surrounding attractions and points of interest;
  - Main highway routes;
  - Locations of hospitals, churches, gas, food, and lodging accommodations.

The basic intent of the seemingly endless list of both national and NPS law enforcement standards is to demonstrate the point to the Corps of Engineers that the provision of capable, and effective law enforcement services cannot be viewed as either a simple task or as a minor ancillary function of Corps rangers. Such services require unique types of individuals to provide them and an extraordinary amount of administrative and overhead functions (training, equipment, communications, etc.) to support them.

D. Conclusions on the Historical Review of Methods of Establishing Law Enforcement Manpower Requirements and Standards of Service

A variety of methods for analyzing law enforcement manpower requirements have been reviewed. As noted, none can be considered to be truly objective and all suffer from one or another methodological deficiencies.

Similarly, a review was conducted of standards of law enforcement service. Such standards are found to be based primarily on professional judgment and are almost exclusively aimed at full-time police agencies. These standards indicate that full-scale law enforcement activities can best be conducted only by well-trained, well-managed, and well-organized, independent police agencies. They clearly indicate that full-scale law enforcement should not be a part-time function because of the complicated constitutional, ethical, and operational knowledge requirements imposed by the nature of the law enforcement mission.

Given these findings, it is clear that the problem of law enforcement and visitor protection at Corps of Engineers lakes cannot be addressed by use of a simplistic formula approach. The next section will elaborate on the proposed PRC/PMS method of addressing the visitor protection issue and will then develop what we regard as basic standards.

#### E. Proposed Goals for the Corps of Engineers Visitor Protection Program

Earlier in this chapter we stated that a reference point or baseline must be developed in order to determine what is meant by "adequate." Basically, the only sound way of attacking this question is to establish goals that describe a set of desirable conditions that must be attained before visitor protection can be considered acceptable or adequate. At this point, it is necessary to introduce the concept of a visitor protection program. In this context the term "program" refers to all activity or group of activities undertaken by Government to provide a service to the public. The Visitor Protection Program at Corps of Engineers lakes is not, at this time, defined in specific programmatic terms. Instead, it consists of a wide array of activities performed by Corps employees and other federal, state and local agencies that as an aggregate constitute "visitor protection" at such lakes.

Before proceeding with this line of thought, it will be useful here to illustrate what we mean by goal statements. Goals can be developed in a variety of ways but in the main they are based on political and

moral values. For example, one municipality (Harrisburg, Pennsylvania) has established a set of goals to describe just what they expect in terms of police protection. These goals are presented below:

1. Harrisburg residents should be able to expect an adequate patrol of the residential areas as well as the business community, either by patrolmen walking the beat, by motor patrol, or otherwise.
2. They should be able to feel secure in their homes and businesses knowing that police protection is available on the shortest possible notice, 24 hours-a-day, through the use of the most modern communications equipment available.
3. They should feel that their children going to and from school are protected by a police presence which, in many instances, is supplied by school crossing guards.
4. They should be able to attend evening meetings or activities or shop in the evenings with the assurance that police patrols are in full operation, especially after dark and between the hours of 7 p.m. and 11 p.m.
5. They should be made to feel secure that if a crime is committed, the police department, through its members, has sufficient training and equipment to apprehend the guilty person and assist in the prosecution.
6. They should know that in the event of an emergency that trained police in sufficient numbers are available to protect them.
7. They should know that there are persons in the police department who have had adequate training in riot control and are otherwise able to handle civil disturbances.
8. They should feel that adequate and accurate records are maintained as to crime statistics so that an adequate assessment can be made of the crime situation in the community.
9. Citizens should have the right to all of these services on a 24 hours-a-day, 365 days-a-year basis.

Once these goal statements are established, the next step is to define precise and measureable objectives. To illustrate, goal statement number 2 requires the police agency to provide protection at the "shortest possible notice." A police agency could then set an objective that reads as follows:



The Police Department will maintain a force level of sufficient strength to allow at least one patrol car to respond to all serious calls within five minutes of police notification in at least 95 percent of all such calls for service received by the agency. In no event shall response time to any serious call exceed 15 minutes.

Given this objective, the department would then identify all system components essential to achieve the objective. For example, the departmental radio communications system must be analyzed to determine what procedures must be instituted to (1) identify "serious" calls; (2) eliminate delay time in dispatching an officer; and (3) documenting this process to facilitate later analysis of how successful the agency is in achieving the objective. Similarly, the Patrol Division must review its allocation, distribution, and deployment of manpower to assure that an appropriate number of officers are available to meet the objective. In turn, each component of the department will be analyzed to determine its contribution to this objective. Finally, all activities and resources devoted to this objective will be aggregated into a "program." The cost of these program activities will then be determined and judgments can be made as to the cost/effectiveness of police performance in satisfying the objective.

The standards must be tailored to apply to diverse and individual locales. Depending on the nature of its jurisdiction and available resources, another police agency, a rural one, for example, might set the quantitative standard in its objective statement at 15 minutes response time in 85 percent of all serious calls received by the agency.

This type of objective standard provides the public as well as legislative and executive bodies with the information needed to determine what they are paying for in terms of police service and whether additional expenses are required to enable the agency to attain the established standards.

As noted, these types of goal statements provide a reference point against which the adequacy of visitor protection can be determined. However, in any formulation of this type it must be clearly understood that value judgements must be made. There is no totally objective "formula" being utilized by any police agency in the nation for determining exactly how many officers are necessary to "adequately" police a jurisdiction.

Another relevant question in determining "adequacy" of visitor protection concerns the nature of the causal relationship between program activities and the effects. For example, most police agencies in evaluating the effectiveness of their activities divide crime into "suppressable" and "non-suppressable" criminal events. More specifically, a purse snatch occurring on a lighted street would be considered a suppressable crime. A domestic homicide, occurring in a private dwelling place, on the other hand, would be considered non-suppressable. A similar situation would prevail in the utilization of police officers to control criminal or other unauthorized activity at Corps of Engineers recreation lakes. Obviously, certain events are beyond the capability of any police force to prevent at such lakes. Thus, in addition to reliance on a police capability to provide visitor protection, it is also necessary to consider other means to provide such protection. For example, design of developed areas at the projects could incorporate considerations of "defensible space," communications devices for public use, closing off of unused access roads, physical security devices to prevent vandalism, crime prevention programs in schools near the project, and so forth.

Another issue requiring serious consideration relates to the question of appropriate jurisdiction of law enforcement agencies in and around Corps of Engineer lakes. For example, at some specific lakes as many as ten municipal and county police agencies may provide some form of service, including State Police and Highway Patrols, Fish and Game Enforcement Agencies, Boating Law Enforcement Agencies, the Federal Bureau of Investigation, Corps Rangers, and others in the provision of protective services. As can be expected, this jurisdictional omnium-gatherum degrades the quality of service.

With these thoughts in mind, the basic approach to the determination of visitor protection requirements will be as follows. The first step will involve the development of appropriate goals for visitor protection. Next, for each goal statement, it is necessary to define specific objectives or specific activity-oriented statements. Then each objective will be analyzed to determine the range of alternatives available to achieve it. The advantages and disadvantages of each alternative will be discussed in a later section to determine their feasibility in terms of cost, perceived effectiveness, and ease of implementation.

It is important to note that the goal statements are visitor-oriented and focus on output. Far too often, such goal statements concentrate on the input end of the resource allocation process in managing a program, such as, number of parks or recreational facilities maintained, tons of garbage collected by area, etc.

The goal statements that follow are based on a review of relevant literature, Corps of Engineers policy statements, interviews with over 200 federal, state and local officials and professional judgment of the recreation and law enforcement specialists assigned to this study.

The first-level goal is formulated to define the basic purpose of Corps of Engineers involvement in recreation and resource management.

The goal of the Corps of Engineers recreation program is to increase the Corps capability to plan, develop and manage the natural resources available at its lakes for optimum and diverse public recreation opportunity for present and future generations. Public safety, personal security and environmental protection are fundamental to people achieving a fulfilling recreation experience while visiting a Corps lake.

Next, with specific attention to the visitor protection program at Corps of Engineers lakes, the following goals, which are not in priority order, are established:

**GOAL 1: VISITOR ASSISTANCE**

Visitors to Corps of Engineers lakes should be assured that the primary mission of law enforcement personnel at the project is to protect and serve recreation users and to assist the public in enjoying their stay at the lake.

**GOAL 2: ENVIRONMENTAL PROTECTION**

Visitors to Corps of Engineers lakes should be assured that officers with appropriate law enforcement authority are available to protect, maintain, and preserve the highest standards of environmental quality and attractiveness of the lake.

**GOAL 3: PATROL**

Visitors to Corps of Engineers lakes should be assured that all areas of the lake are patrolled by officers with law enforcement authority on a regular and continuing basis.

**GOAL 4: AUTHORITY AND MANPOWER**

Visitors to Corps of Engineers lakes should be assured that if a crime is committed, officers with law enforcement authority will be available and have the capability to apprehend the guilty party and present the individual(s) for adjudication to the appropriate judicial authority.

**GOAL 5: COMMUNICATIONS**

Visitors to Corps of Engineers lakes should be assured that communication devices are available throughout the lake to enable them to report emergencies and other situations requiring law enforcement services without undue delay or difficulty.

**GOAL 6: COORDINATION**

Visitors to Corps of Engineers lakes should be assured that law enforcement authorities at the lake have developed and maintain effective working relationships with the U.S. magistrates, U.S. courts, U.S. attorneys and all applicable federal, state and local law enforcement and criminal justice agencies.

**GOAL 7: RECORDS**

Visitors to Corps of Engineers lakes should be assured that adequate and accurate records are maintained on all situations related to law enforcement needs and problems at the lakes so that Corps decision-makers can make informed assessments and plans for visitor protection at the lakes.

**GOAL 8: PLANNING**

Visitors to Corps of Engineers lakes should be assured that all Corps lakes with a recreation component in the planning stage will be developed so as to: 1) enhance the personal safety of visitors; 2) facilitate safety of visitors; and, 3) facilitate the effective provision of law enforcement and visitor protection services. Master plans for Corps lakes and recreation areas should have a law enforcement and visitor protection component.

The above, then, are the goals for the Corps of Engineers Visitor Protection Program. The following statement of Basic Policy is needed, in addition, to govern the interpretation of these goals.

Basic Policy:

While safety from hazards, personal security and freedom from disturbance is fundamental to a satisfying recreation experience, overt law enforcement practices of control, search, seizure and arrest are antithetical to the recreation experience. Thus, the delivery of visitor protection and law enforcement services will be based upon an understanding of the nature of the recreation experience. A humanistic approach will be made in correcting improper behavior that is harmful to the individual, other recreationists, or to the environment. By the same token, law enforcement measures must be quickly and forcefully applied to quell more intensive infractions or disturbances that infringe upon the recreation experiences of others and damage facilities or the environment.

F. Goals Implementation

According to the previous partitioning of lakes into class categories, the above goals have been translated into visitor protection services relating to specific needs. More specifically, class A lakes will require the highest level of "people" and resource-oriented visitor protection; class B lakes will require a lower level of "people-oriented" protective services and a higher order of facility and resource protection; class C lakes are being run primarily by state, local, or other federal agencies and will require the Corps to make appropriate agreements with such agencies to assure that visitor protection services are available; and class D lakes, while under Corps control, will primarily require facility protection. In the discussion that follows, specific objectives will be formulated for each project classification.

As noted previously, goal statements are formulated in general terms. The next step is to translate each goal statement into a measurable objective to be achieved in a defined time period. Each goal and its appropriate objective(s) are discussed below.

GOAL 1: VISITOR ASSISTANCE --Visitors to Corps of Engineers lakes should be assured that the primary mission of law enforcement personnel at the lake is to protect and serve recreation users and to assist the public in enjoying their stay at the lake.

Discussion. It cannot be emphasized too strongly that recreation is the primary aim of visitors to Corps lakes. Visitor protection services are simply an adjunct but necessary function to be performed to enable visitors to enjoy their stay as much as possible. This orientation requires enforcement personnel to be effective but unobtrusive. Enforcement policy should be heavily weighted to community relations and personnel should be encouraged to utilize their discretionary authority to the fullest on the side of leniency. This does not mean that laws and regulations should be ignored. It does mean that the aim of enforcement personnel should be focused on inducing voluntary compliance by the public with relevant laws, rules and regulations. The basic enforcement policy should stress prevention, as opposed to control and apprehension. Of course, there will always be some individuals who are out to commit serious crimes, harass and disturb other users unnecessarily, destroy project resources, and vandalize property. The only way to deal with such individuals is to provide firm, fair and intensive enforcement pressure.

Objective 1-1: Enforcement personnel at Corps of Engineers lakes should be sufficiently aware of the availability of all facilities and procedures at the project and should be able to provide this and other types of appropriate information to the public when requested.

Standards of Service: The only way to measure the performance of this objective is through randomized surveys of recreation users. Such surveys should ascertain the number of users requesting information and their degree of satisfaction with such service.

Objective 1-2: All personnel with enforcement authority at Corps of Engineer class A and B lakes should be trained in human relations and recreation as well as on the nature and scope of lake resources.

Standards of Service:

- Same as standard of service relating to Objective 1-1;
- Same surveys of individuals arrested, cited, or warned by enforcement personnel; and
- Follow-up evaluation of calls for law enforcement/visitor protection services with persons requesting such service.

GOAL 2: ENVIRONMENTAL PROTECTION--Visitors to Corps of Engineers lakes should be assured that officers with appropriate law enforcement authority are available to protect, maintain, and preserve the highest standards of environmental quality and attractiveness of the lake.

Discussion. While continued maintenance of project resources, wildlife management, and design criteria, all contribute to assuring the environmental quality of the project, it is all too clear that enforcement of resource and wildlife protection laws and regulations must accompany more passive measures. More specifically, a wide range of resource-damaging activities are occurring at Corps projects including: (1) camping in unauthorized places; (2) use of off-road vehicles that cause destruction of flora and erosion; (3) littering; (4) tree cutting; (5) out-of-season fishing or hunting or use of illegal methods; (6) unattended or careless fires; and (7) parking in unauthorized areas. While this type of enforcement activity is performed ably by existing ranger personnel with citation authority, it is also necessary that any enforcement officer providing extensive patrol services at a Corps lake should have the necessary authority and knowledge to deal with such violations. Closely related to this enforcement goal is the need to develop a viable environmental protection/prevention program for lake users. Ranger personnel are particularly well-equipped to manage this prevention function.

Objective 2-1: Ranger personnel should continue to be responsible for environmental protection at Corps lakes. However, it will be necessary to significantly increase the existing use of Title 36 enforcement.

Standards of Service:

- Significantly increase the number of Corps rangers possessing citation authority;
- Significantly increase the number of citation training programs so that all personnel with citation authority have completed a minimum of 50 hours of such training; and
- Significantly increase the issuance of citations and written warnings by a factor of at least two.

Objective 2-2: The Corps should significantly increase its environmental and resource protection public education program particularly in local school systems in close proximity to Corps lakes.

Standards of Service:

- Increase number of special presentations by ranger personnel in schools;
- Increase number of newspaper articles explaining Corps resource protection programs;
- Increase number of public educational presentations to civic and other community groups.

GOAL 3: PATROL--Visitors to Corps of Engineers lakes should be assured that all areas of the lake are patrolled by officers with law enforcement authority on a regular and continuing basis.

Discussion. The intent of this goal statement is to establish that regular and continuing patrol of a lake is necessary. At the present time during normal work hours, Corps personnel with citation authority will, in the course of their duties inspect most areas of a lake on a daily basis. There is some patrol after normal working hours at some lakes; however, our field visits have convinced us that these patrols are not as intensive as required.

Objective 3-1: Class A Corps of Engineer recreation-resource lakes will require a minimum of 16 hours per day of law enforcement patrol



coverage during periods of peak usage. Ranger personnel will supplement these services and provide patrol services during off-peak periods of usage.

Objective 3-2: Class B Corps of Engineer recreation-resource lakes will require a minimum of eight hours per day of law enforcement patrol coverage during periods of peak usage. Ranger personnel will supplement these services and provide patrol services during off-peak periods of usage.

Objective 3-3: Class C lakes will require that the Corps negotiate appropriate written agreements with agencies operating outgranted areas to provide visitor protection services. As a minimum, such agreements should provide for visitor protection services at least equal to those provided by the Corps at similar Corps-operated areas.

Objective 3-4: Class D lakes will require facility and resource protection by Corps or security personnel on a 24-hour-a-day basis. No regular patrol services will be required at these projects.

Standards of Service Relating to Objectives 1-4:

- Class A lakes: All Corps developed areas of such lakes will be inspected at least four times per twenty-four hour day by law enforcement officers. All portions of the lake will be inspected at least twice per twenty-four hour day.
- Class B lakes: All Corps developed areas will be inspected at least twice per twenty-four day by law enforcement officers. All portions of the lake will be inspected at least once per twenty-four hour day.
- Class C lakes: Either the Class A or Class B standards of patrol service will be applicable to outgranted projects depending on the characteristics.
- Class D lakes: Twenty-four hour security protection of facilities required. Normal Corps activities sufficient for visitor and resource protection, providing, however, that each Class D project have at least one Corps personnel with citation authority.

GOAL 4: AUTHORITY AND MANPOWER:--Visitors to Corps of Engineers lakes should be assured that if a crime is committed, officers with law enforcement authority will be available, and have the capability to apprehend the guilty party and present the individual(s) for adjudication to the appropriate judicial authority.

Discussion. Based on our field visits and questionnaire analysis, it is our judgment that the Corps should not develop an internal investigative capability. Existing federal agencies, such as, the Federal Bureau of Investigation, the Provost Marshal, the Drug Enforcement Administration provide high quality investigative services the Corps can draw upon when serious federal offenses occur. In addition, due to the Corps proprietorial management of project lands, state and county police organizations will generally provide investigative services related to state law violations when requested.

The Corps primary need is for individuals who can perform professional preliminary crime and accident investigations similar to those performed by capable patrol officers in state, county, and local organizations. In addition, those rangers with citation authority who have received training should be able to handle investigations related to Title 36 violations. However, in those areas of the nation where local law enforcement is undermanned, it may be necessary to provide for some form of contract investigative services from duly-constituted law enforcement agencies. The objectives specified below address these issues.

Objective 4-1: Officers with law enforcement authority at all class A and B Corps lakes, who provide patrol services, should be competent and trained to perform professionally acceptable preliminary investigations of reported crime, accidents, and traffic crashes.

Standards of Service: All preliminary investigations by law enforcement personnel at Corps class A and B lakes should be judged acceptable for follow-up investigative purposes by whatever agency provides such services. No court cases should be lost because of inadequate preliminary investigations.

Objective 4-2: The Corps of Engineers should develop appropriate written agreements with all federal, state, and local agencies whose jurisdiction encompasses Corps projects regarding the nature and scope of investigative services to be provided.

Standards of Service:

- Existence of written agreements;
- Clearance rates for reported crimes at Corps lakes where external agencies conduct follow-up investigations;
- Existence of supplementary reports detailing the steps taken by agencies providing investigative services at Corps lakes.

Goal 5: COMMUNICATIONS-- Visitors to Corps of Engineers lakes should be assured that communication devices are available throughout the lake to enable them to report emergencies and other situations requiring law enforcement services without undue delay or difficulty.

Discussion. Our site visits have convinced us that virtually none of the Corps recreation areas maintain adequate or, in some cases, any communications devices that would enable a visitor in either remote or attended areas to report an emergency situation without extensive delays. There are problems in implementing these objectives. One difficulty may be in developing a device that could stand up to vandalism, rough usage, or similar problems. In some park systems, telephone companies have installed pay phones, only to find out they are (1) not economically feasible or (2) broken into by thieves or destroyed by vandals. Nonetheless, visitor protection services are useless if they cannot be delivered at those times and places when they are needed. This is both a technical and operational problem that may require some form of subsidy to telephone companies, or the development of innovative, effective, and vandal proof communications devices for the public. Later sections of this report address this question in detail, but the objective set forth below is the operative statement on this problem.

Objective 5-1: All developed Corps recreation areas of class A and B Corps lakes should have a minimum of one device to enable the public to request law enforcement or other emergency devices.

Standards of Service:

- No visitor to any developed recreation area at Corps lakes should have to spend more than ten minutes looking for and utilizing a communications device to obtain law enforcement or other emergency service.

Objective 5-2: The Corps of Engineers should negotiate written agreements with all state, local and federal agencies operating developed recreation areas at Corps lakes to assure that such agencies provide communications devices at their areas.

Standards of Service:

- Same as Objective 5-1.

GOAL 6: COORDINATION--Visitors to Corps of Engineers lakes should be assured that law enforcement authorities at the lake have developed and maintain effective working relationships with U.S. magistrates, U.S. courts, U.S. attorneys and all applicable federal, state and local law enforcement and criminal justice agencies.

Discussion. This is an extremely important goal to assure the development of an effective law enforcement and visitor protection program. Our site visits to Corps lakes revealed a wide diversity of interagency relations ranging from excellent at some sites to complete disunity at a number of others. In these locations where Corps-other criminal justice agency relationships were considered to be less than acceptable, the following issues were present: 1) confusion of jurisdictional authority and geographical boundaries; 2) inadequate provision of services, notably follow-up investigations to the lake by local agencies; 3) poor cooperation from U.S. magistrates with respect to the citation program; and 4) inadequate communication of Corps requirements for investigative services to appropriate federal enforcement agencies. The reasons these issues exist are many and complex but basically boil down to these:

- Lack of financial and other resources in local law enforcement agencies to enable them to provide adequate police services at Corps lakes.
- Lack of political importance of Corps lakes to county sheriffs. Generally, the sheriff will concentrate his available resources in areas where permanent residents (who elected him) live, to provide the type of visibility and service levels necessary to maintain the electoral support of such constituents.
- Emphasis on traffic enforcement by certain state enforcement agencies instead of emphasis on crime and public order control.
- Inadequate communication of Corps needs in terms of the citation program and visitor protection services. Occasional misunderstanding that the Corps has its own police operation.

These are all serious issues, only some of which can be resolved by improved communication processes. The other issues, such as lack of political importance, or lack of resources, cannot be resolved in a simplistic manner.

In brief, the Corps lacks the political "muscle" particularly at the county level to obtain the required police and court resources necessary to upgrade visitor protection services. In these instances, it will be essential that the Corps provide some form of subsidy to county or state law enforcement agencies to obtain a higher level of service. The objectives presented below address both issues.

Objective 6-1: Each Corps lake manager should prepare a detailed descriptive document outlining pertinent facts about the recreation project (e.g., number of visitors, map showing boundary lines, facility descriptions, etc.) and identifying specific law enforcement needs. This document should be submitted to each and every criminal justice agency with jurisdiction at the lake. The lake manager should meet with each agency to determine exactly what services can or cannot be provided. A written report should then be prepared outlining exactly what needs can be met by such agencies; what needs cannot be met; and what problems exist.

(Appropriate implications of this report should be considered in the preparation of the annual law enforcement plan for the lake as described under Goal 8.)

Standards of Service: Existence of authorization, appropriated funds, policy, procedures, and control mechanisms to enable the Corps to purchase services or subsidize duly-constituted law enforcement agencies to provide the needed services identified under Objective 6-1.

Objective 6-2: Corps lake managers will develop effective working relationships with U.S. magistrates and other judicial authorities having jurisdiction over incidents occurring at Corps recreation lakes.

Standards of Service: Judicial acceptance of jurisdiction on citation and other actions taken by Corps personnel.

GOAL 7: RECORDS--Visitors to Corps of Engineers lakes should be assured that adequate and accurate records are maintained on all situations related to law enforcement needs and problems at the lake so that Corps decision-makers can make informed assessments and plans for visitor protection at the lake.

Discussion. The Corps of Engineers maintains an incident reporting system at all its lakes that is intended to identify criminal and other unusual incidents occurring at each lake. This data is computerized and can be aggregated in a wide variety of formats. Data is also compiled on warnings and citations issued by rangers. The system itself is designed well but it has some major flaws at the present time that render it virtually useless for planning, analysis, and decisionmaking purposes. These flaws are as follows:

- At those lakes where multiple law enforcement agencies provide service, the Corps incident reporting system does not, as a general rule, pick-up crimes reported to such agencies or arrests made by such agencies.
- There is a good deal of under-reporting of vandalism and other minor offenses at Corps lakes.

- At those lakes where some developed areas are maintained by the Corps and some by other state, local or federal agencies, the Corps incident reporting system, as a general rule, will not pick up offenses occurring or arrests made in outgranted areas.
- Citizens victimized or otherwise harassed at Corps lakes are somewhat reluctant to report crimes for a wide variety of reasons.

All of these situations have been verified during our field visits to Corps lakes. This leads us to the conclusion that the existing incident reporting system will require some modifications to make it a useful tool for decision-making. This is discussed in further detail in Chapter 14. Additionally, at no time in this study were we made aware that any systematic planning for visitor protection is undertaken by the Corps. These findings lead to the objectives that follow.

Objective 7-1: Each Corps lake manager should establish systems and procedures to obtain reports of crimes, arrests, or other unique incidents occurring at the lake from all law enforcement agencies providing such services at the lake. The lake manager should incorporate such incidents into his reports to higher Corps levels.

Standards of Service: Existence of a plan and agreements for obtaining the required data from law enforcement agencies. This data should be obtained at least once per month.

Objective 7-2: A system of annual sample surveys should be implemented at class A and B lakes to maintain a current evaluation of user experience and victimization at the lake. As a minimum, this survey should determine: (1) user opinions about the level and quality of visitor protection services at the lake; (2) any criminal victimization of lake users; and, (3) user suggestions for improving safety conditions at the lake.

Standards of Service: Existence of a written report on the sample opinion survey on visitor protection. This survey must be conducted at least once a year.

GOAL 8: PLANNING--Visitors to Corps of Engineers lakes should be assured that all Corps lakes with a recreation component in the planning stage as well as all future projects will be developed so as to: 1) enhance the personal safety of visitors; 2) facilitate safety of visitors; and, 3) facilitate the effective provision of law enforcement and visitor protection services. Master plans for Corps lakes and recreation areas should have a law enforcement and visitor protection component.

Discussion. Our site visits and analysis of data provided by Corps lake managers have convinced us that many Corps lakes having a recreation component were designed and developed without appropriate consideration of either the personal safety of lake users or the needs of law enforcement delivery agencies. This is not particularly surprising since such basic concepts as "defensible space" or environmental security were not fully developed at the time such projects were constructed. Also, it was a rare planner who recognized that law enforcement needs should be considered in project planning and design. Essentially such considerations represent a preventive approach to visitor protection and law enforcement problems.

There are measures for providing enhanced visitor protection and facilitating law enforcement which can be reflected in the layout and management of a Corps recreation area. Master plans for new recreation areas should contain a law enforcement and visitor protection component. Similarly, annual or long-range plans for the upgrading or expansion of existing recreation areas should also give special attention to park practices and law enforcement measures which will provide improved protection to visitors and project resources. More specifically, a law enforcement and visitor protection planning function plan should be established either within or otherwise responsible to the Corps of Engineers. The scope of planning should include longer range policy and program planning at the Office of the Chief of Engineers, through more focused planning, design



and coordination efforts at the Division and District levels. An annual law enforcement and visitor protection plan should be prepared by each lake manager.

In brief, there is a lot that can be done in the design stages of a lake that can contribute much to the prevention of future problems. However, it is first necessary to determine the exact nature of such prevention design efforts, cost, and potential effectiveness. The objectives below address these needs.

Objective 8-1: The Corps should establish a position for a professional enforcement specialist at the Division level to assist in the planning and design of recreation areas and to coordinate law enforcement and visitor protection planning and services of the Districts within the Division.

Standards of Service: Establishment of the position and implementation of a planning review process prior to January 1975.

Objective 8-2: The Corps should institute mandatory inclusion of law enforcement and visitor protection design concepts in planning efforts for lakes with recreation components. Each Corps Class A and B lake manager should prepare, or cause to be prepared, an annual law enforcement and visitor protection plan. The plan should be based on quantitative and accurate data and should address specific objectives to be addressed and achieved during the planning period.

Standards of Service:

- Existence of an Engineering Regulation on Law Enforcement and Visitor Protection prepared by the Office of the Chief of Engineers, including appropriate amendments to existing ER's pertaining to recreation planning, design and management;
- Existence of law enforcement and visitor protection policy and management plans at Division and District offices;

- Existence of detailed visitor protection plans for class A and B lakes.

Objective 8-3: The Corps of Engineers should conduct, or cause to be conducted, a detailed study to identify specific environmental designs and management practices that serve to minimize or eliminate existing visitor protection and law enforcement problems at Corps recreation lakes.

Standards of Service: Completion of a study to satisfy Objective 8-3 prior to June 1975.

G. Summary

These standards and goals have been designed to assist the Corps of Engineers in future decisionmaking and evaluation. The inclusion of these standards and goals into policy and programmatic action is the first step to implementation of a law enforcement program at Corps lakes. Chapter 11 of the report will discuss various alternative courses of action for the Corps to pursue in administering the services necessary to effectuate the standards and goals formulated in this chapter.

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CHAPTER 9  
IMPROVEMENTS IN MANPOWER LEVELS

A. Introduction

This chapter of the report will address one method of improving visitor protection at the lakes--additional manpower. This recommendation is felt to be the minimum effort the Corps should extend to improve the recreation experience at their lakes. Other improvements such as organizational changes, management emphasis, and increased planning and coordination are very important to providing an improved total system delivery capability, but the actual field operation is the first and most essential step at this stage. Other measures for improvement will be discussed in the final chapters.

This discussion will be divided into two parts. The first discussion will specify the level of sworn law enforcement officers with full police power needed to cope with serious misdemeanors, felonies, and emergency situations, irrespective of what agency provides the service. The second discussion will be addressed specifically to the level of Corps rangers needed to deal with general resources and visitor management.

B. Required Level of Peace Officers

It is apparent, based on the findings from the field trips and questionnaires, that while state and local law enforcement is spending a great deal of time and effort at Corps lakes, services are still only accessible on an emergency basis at the majority of the lakes. There is little actual on-site surveillance and preventive patrol except at the largely attended, urban lakes. As Table 7-3 in Chapter 7 revealed, 50

percent of the total local law enforcement expenditures were spent at these lakes, which only account for one-fourth of the A lakes, not to mention the B lakes. Thus at some of the smaller, rural lakes, due to the limited local resources, the Corps rangers are the only noticeable visitor protection measure, and some of these are temporary rangers.

Consequently, emphasis has been centered on the lakes which access the greatest amount of visitors to the detriment of the smaller, less attended lakes. While this logic is obviously sound, it is not sufficient. That is to say that emphasis must be placed at all the lakes, with the largely attended still receiving priority.

The level of peace officers necessary to provide visitor protection at the Corps lakes is the number of peace officers necessary to effectively fulfill the operational requirements included in the standards for service established from the Corps of Engineers goals for a visitor protection program discussed in Chapter 8.

The operational requirements serve as a basis for general service and may be tailored to specific lakes to fit topography, water level, or other unique characteristics. For example, at some of the smaller lakes, five minutes response time might be more rational than a standard 15 minutes, or eight inspections per developed area may be necessary because there are only one or two developed areas. Thus, the present calculations for manpower have been based on a general or universal assessment and the levels established are minimum levels for service, thus leaving room for improvement at specific lakes.

Table 9-1 indicates the hours of service required at the lakes from well-trained, law enforcement officers with complete peace officer authority to enforce all state laws. To explain the figures, the table has been divided into the summer season and the rest of the year. The study team found that during the off-season attendance and accompanying crime and vandalism decreased appreciably. Thus, the police service has

TABLE 9-1  
PATROL SERVICE REQUIRED AT CORPS LAKES  
BY SWORN PEACE OFFICERS

| Class of Lake                                         | Patrol on Weekdays during<br>the summer season<br>87 days | Patrol on weekends and<br>Holidays during the<br>summer season 33 days | Patrol the<br>rest of the<br>Year | Total<br>Services<br>Needed | Total for<br>all lakes<br>in the Class |
|-------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------|-----------------------------|----------------------------------------|
| Urban A lakes with<br>attendance over one<br>million  | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 24 hours of two-man<br>patrol<br>Total: 1584 hours                     | Calls for<br>Service<br>Basis     | 2976 hrs.                   | 95,232 hrs.                            |
| Rural A lakes with<br>attendance over<br>one million  | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 24 hours of two-man<br>patrol<br>Total: 1584 hours                     | Calls for<br>Service<br>Basis     | 2976 hrs.                   | 116,064 hrs.                           |
| Urban A lakes with<br>attendance under<br>one million | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 20 hours of one-man<br>patrol<br>Total: 660 hours                      | Calls for<br>Service<br>Basis     | 2052 hrs.                   | 22,572 hrs.                            |
| Rural A lakes with<br>attendance under<br>one million | 16 hours of one-man<br>patrol<br>Total: 1392 hours        | 16 hours of one-man<br>patrol<br>Total: 528                            | Calls for<br>Service<br>Basis     | 1920 hrs.                   | 72,960 hrs.                            |
| B lakes                                               | 8 hours of one-man<br>patrol<br>Total: 696 hours          | 12 hours of one-man<br>patrol<br>Total: 396 hours                      | Calls for<br>Service<br>Basis     | 1092 hrs.                   | 90,636 hrs.                            |
| TOTAL SERVICE FOR ALL LAKES: 418,344 hours *          |                                                           |                                                                        |                                   |                             |                                        |

(Source: PRC/PMS)

\*Includes 20,880 hours for unclassified lakes.

to be weighted to reflect this decrease in activity so as not to over-enforce unnecessarily.

All patrols are one-man, one-car, except for weekend and holiday service at the lakes with attendance over one million. It was found that the existence of the problem, as previously described, at these lakes warranted two-man, two-car patrols during the weekends and holidays. The probability of having one patrol tied up on calls for service is far greater at these lakes on weekends and holidays than at any of the other lakes. Thus, if one patrol is continually answering calls for service, the other can continue surveillance.

In addition to the summer season, the access to peace officers at the lakes should be insured on a "calls for service" basis during the off-season. It may be necessary to pay expenses during this period. Converting the total of hours of service needed by law enforcement is difficult because some agencies may work more than an eight-hour day. Additionally, it may be possible for one patrol car to patrol more than one lake. The close proximity of many of the B lakes in the New England Division makes this possible in this area of the country.

Nonetheless, it is possible to calculate that providing 306,828 hours of service at all Corps A lakes will take the equivalent of four officers for largely attended lakes, including days off and sick time, and three officers at the lesser attended lakes for the summer season. This would bring the total officers needed at A lakes to 522. The B lakes would take the equivalent of more than two officers per lake. Assuming that patrol cars "double-up" at at least 25 percent of the B lakes, this brings the total to 62 that would need patrol officers. Based on these calculations, the Corps of Engineers would need the equivalent of 584 peace officers to patrol these lakes within the purview of the visitor protection standards.

This section has not addressed the required level of service needed to patrol the water surface. As concluded in Chapter 6, this service is



currently felt to be sufficient especially considering the minimal cost to the Corps of Engineers budget.

C. Required Level of Corps of Engineers Rangers

The consensus of the findings is that the Corps lakes are significantly undermanned. Ranger management responsibilities will be substantially increased as recreation gains priority with the public. In addition, the amount of visitors continues to increase. An immediate increase in Corps rangers before the next season is absolutely warranted.

The difficulty lies not in assessing that a problem exists, but in deciding to what lengths one should go to solve the problem. More specifically, how many rangers are needed to effectively promote the visitor protection standards. This standard involves the protection, maintenance, and preservation of resources by expanded use of the Title 36 program. Additionally, more rangers are necessary to supervise the temporary employees; screen out and handle minor calls for service so as not to tie up the peace officers; and be available to assist recreation users at all hours of the day. Thus, additional professional rangers are needed to provide this coverage.

There are several methods of calculating the number of additional rangers needed at the lakes. First, a minimum level should be established as a base. Considering the increased recreation usage being received at the Corps lakes and the level of development at the A lakes, it is imperative that a professional, permanent ranger or equivalent be available for maximum service on a continual basis during the season. It is important to have the permanent, trained rangers who can provide supervision for the seasonal temporaries.

Alternative Y--Minimum Improvement

The following Table 9-2 displays a possible staffing allocation which receives maximum coverage from 4 permanent rangers. The important feature is the overlap of two rangers between the hours of 7 p.m.-12 p.m.

TABLE 9-2

## STAFFING PLAN FOR 4 PERMANENT RANGERS (A, B, C, D)

5-DAY/40-HOUR WEEK

|                  | Sun | Mon              | Tues | Wed | Thur | Fri | Sat |
|------------------|-----|------------------|------|-----|------|-----|-----|
| 7 a.m. - 3 p.m.  | B   | MGR <sup>1</sup> | A    | A   | A    | A   | A   |
| 4 p.m. - 12 p.m. | C   | B                | B    | C   | C    | C   | C   |
| 7 p.m. - 3 a.m.  | D   | D                | D    | B   | B    | D   | D   |

(Source: PRC/PMS)

<sup>1</sup>The only period left unattended by rangers can be covered by the manager.

when, as the self-report questionnaires revealed, most problems occur. The hours from 3 a.m.-7 a.m., when the fewest problems occur, can be handled by experienced seasonal temporaries. Additional use of temporaries will be discussed in the discussion on training.

One of the major problems that the study team found was the poor allocation of permanent rangers across each shift. As Table 9-3 reveals, at the A lakes over 70 percent of the permanent ranger force worked the day shift, while 50 percent of the seasonal employees worked the evening and midnight shift with minimal assistance and supervision. Following the staffing plan in Table 9-2 would eliminate this problem.

The number of rangers needed to provide this coverage is expressed in Table 9-4. As this table reveals, 212 additional rangers are needed at a minimum at the A lakes. However, it is possible to reduce the number needed by reallocating the present ranger force. This would involve taking rangers away from lakes with more than four rangers. This is not advisable since these lakes appear to need the services of every single ranger. Thus, it is not as though these lakes were "overstaffed." They are not. Additionally, the number of rangers saved by reallocation is minimal, as the table reveals.

Coverage at the B lakes presents a different picture. All B lakes are minimally developed and the average attendance at these lakes is 72 percent less than the A lakes. But even more significant is the fact that over 69 percent of the B lakes are primarily for day use activities. Based on these facts, it is recommended as a minimum, that each B lake should have the services of permanent, trained rangers. As previously mentioned, if it is possible that 25 percent of these closely approximated lakes can receive attention from rangers doubling up their responsibilities, this would mean that 55 rangers would have to be added to the B lakes.

In conclusion, the addition of 278 permanent rangers are needed, as a minimum, to faithfully provide the standards established in Chapter 8.

TABLE 9-3  
 PERSONNEL ALLOCATIONS OF CORPS RANDERS  
 BY SHIFT AT THE LAKES

| CLASS OF LAKE                   | DAY<br>SHIFT | EVENING<br>SHIFT | MIDNIGHT TO<br>MORNING SHIFT |
|---------------------------------|--------------|------------------|------------------------------|
| PERMANENT RANGERS<br>"A" LAKES  | 70%          | 26%              | 4%                           |
| SEASONAL EMPLOYEES<br>"A" LAKES | 50%          | 27%              | 23%                          |
| PERMANENT RANGERS<br>"B" LAKES  | 84%          | 11%              | 4%                           |
| SEASONAL EMPLOYEES<br>"B" LAKES | 86%          | 12%              | 2%                           |

(Source: PRC/PMS)

TABLE 9-4

LEVEL OF ADDITIONAL CORPS RANGERS NEEDED  
TO PROVIDE 24-HOUR COVERAGE AT THE LAKES

| CLASS                                                 | ADDITIONAL<br>RANGERS<br>NEEDED | RANGERS NEEDED<br>AFTER<br>REALLOCATION |
|-------------------------------------------------------|---------------------------------|-----------------------------------------|
| URBAN A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 30                              | 10                                      |
| RURAL A LAKES<br>WITH ATTENDANCE<br>OVER ONE MILLION  | 67                              | 62                                      |
| URBAN A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 27                              | 27                                      |
| RURAL A LAKES<br>WITH ATTENDANCE<br>UNDER ONE MILLION | 88                              | 88                                      |
| ALL B LAKES*                                          | 55                              | 55                                      |
| TOTAL**                                               | 278                             | 254                                     |

\*Based on Previous Sharing Policy

\*\* Includes A lakes that were not classified.

(Source: PRC/PMS)

Alternative Z--Expanded Coverage

As mentioned previously, it is difficult to make any calculations concerning seasonal employees because of the lack of consistency in their utilization at the lakes. However, the seasonal employees do provide a needed temporary stop-gap during peak use at the lakes. While it is possible to improve the current training and use of seasonal employees (as will be discussed in detail in the chapter on training) it is currently against Corps of Engineers policy to issue seasonal employees citation authority. Within the limits of this policy, the seasonal employees can still provide the same level of coverage as rangers, short of issuing citations. They have direct access to both rangers with citation authority and peace officers with full law enforcement powers. The effectiveness of such access, however, will depend upon the responsiveness of the overall visitor protection system, including communication and availability of ranger and peace officer manpower in the lake area.

Thus the recruitment, selection, training, and continued seasonal retention of seasonal employees should be given greater emphasis in the Corps visitor protection program.

If it can be assumed that currently at least half of the seasonal employees or 299 are active participants in resource management and visitor protection, then the total Corps complement of rangers or equivalents at the A lakes during the last season was 612. This would mean that based on previous seasonal attendance of over 147 million at the A lakes, there was an average of 240,000 visitor days per ranger or seasonal equivalent.

It is the opinion of the study team that a more manageable situation would occur and recreation users would have more access and attention from rangers, if the ratio reflected no more than 100,000 visitor days per ranger or seasonal equivalent during the summer season. This would involve increasing the Corps manpower by 858 employees to reach a level of 1470 divided between permanent rangers and seasonal employees.

If the current ratio of 2 to 1 were maintained this would mean adding 286 permanent rangers and 572 seasonal employees at the A lakes.

Since the conditions at the B lakes, as previously described, do not warrant this close attention, it is recommended that the rangers be increased so that the ratio does not exceed 150,000 visitor days per ranger or seasonal equivalent per summer season. Maintaining the current ratio, this would involve the addition of 36 permanent rangers and 72 seasonal employees at the B lakes.

Thus the total number of additional rangers needed would be 322 and seasonal employees 644 to reach an increased level of coverage.

To summarize, Table 9-5, displays the manpower needed to improve the Corps of Engineers visitor management and resource protection program by the addition of permanent rangers and seasonal employees.

#### Lakes for Special Consideration

These manpower recommendations are generalized so that they apply across the nation to as many lakes as possible. However, there are unique exceptions. Highly urbanized, highly attended lakes including Lake Sidney Lanier and J. Percy Priest Reservoir, may exceed the standard range of coverage due to their extensive nature. For these lakes, special consideration must be shown to closely assess the problem and determine if the standard coverage should be increased at these high potential crime areas.

This task should not be cumbersome since these lakes are few in number. The study team, after surveying the above mentioned lakes, found that the standard coverage established for all the other large A lakes would serve as a minimal initiation base for these special consideration lakes. The coverage should be closely evaluated after the first month of service and if necessary manpower should then be strengthened.

TABLE 9-5

IMPROVED MANPOWER LEVEL PLANS AT  
CORPS OF ENGINEERS LAKES

| Staffing<br>Plan      | Current Manpower<br>Levels |                       | Added Manpower<br>Needed to Reach<br>Standard Service |                       | Total<br>Manpower    |                       |
|-----------------------|----------------------------|-----------------------|-------------------------------------------------------|-----------------------|----------------------|-----------------------|
|                       | Permanent<br>Rangers       | Seasonal<br>Employees | Permanent<br>Rangers                                  | Seasonal<br>Employees | Permanent<br>Rangers | Seasonal<br>Employees |
| Alternative<br>Plan Y | 320                        | 615                   | 278                                                   | 0                     | 598                  | 615                   |
| Alternative<br>Plan Z | 320                        | 615                   | 322                                                   | 644                   | 642                  | 1259                  |

(Source: PRC/PMS)



## Chapter 10

### LEGAL CONSIDERATIONS

#### A. Introduction

Consideration of enforcement options necessarily entails consideration of several legal issues. These issues are referred to at appropriate points throughout the study, but the study team judges it advisable to include this short section concentrating on the legal issues.

The most important point to understand is that there is an amplitude of federal power to support almost any enforcement option the Corps may choose. Thus the ultimate choice should be based on administrative considerations with relatively little worry about legal constraints. Some options would entail requests for additional statutory power, but there is no question about the sufficiency of constitutional power to accomplish the Corps major purposes.

A second important point is that choice of one enforcement option as the predominant mode of operation does not necessarily preclude use of the other enforcement options on appropriate occasions. For example, a choice to give rangers the power to enforce regulations by the issuance of citations does not deprive them of their common law powers to act in certain aggravated circumstances to end a breach of the peace. Nor is it legally impermissible to give officers or rangers broader powers than they are usually expected or trained to exercise. The problems of when to exercise what powers are more problems of appropriate training than they are of the existence of legal power.

Moving on to the specific legal issues, we have divided our discussion into the following subjects:

- Constitutional powers
- Jurisdiction over federally owned lands
- Sources of criminal law
- Degrees of enforcement power
- Agencies with enforcement power

B. Constitutional Powers

That there is an amplitude of constitutional power to support almost any enforcement option can be seen from two specific provisions of the United States Constitution. Article IV, Section 3, Clause 2, reads in part as follows:

The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States...

Should there be some conflict between federal regulations governing its property and state or local laws, the conflict would be resolved in favor of the United States under the "Supremacy Clause," which appears in Article VI:

This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

Further support for this power of the United States to do what it wishes with its own land can be found in Article I, Section 8, Clause 17, the primary purpose of which was to give the United States "exclusive legislation" over the seat of government, the land for which was to be ceded to the United States by some of the States. That clause went on to grant Congress the power "to exercise like authority over all places

purchased by the consent of the legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings." As we shall see in a moment, the United States has more typically chosen to share jurisdiction over its lands with the States, and this power to take exclusive jurisdiction is less important to this study than the Article IV power "to make all needful rules and regulations" respecting United States property.

One further constitutional point should be mentioned. The United States is a government of enumerated powers, possessing only those powers specifically set forth in the Constitution. Among other things, this means that the United States does not possess "police power," that attribute of sovereignty enabling the state to regulate the activities of its citizens as it sees fit unless it is somehow specifically prohibited from doing so. Every act of the United States must be founded in some specifically stated constitutional power. With perhaps a few exceptions, the lands involved in this study have been acquired and are being used by the United States in the exercise of the commerce power (Art. I, Sec. 8, Cl. 8). The commerce clause has long been construed as giving the United States the power to regulate navigable waters, and that power has been construed as extending to flood control purposes. But even so broadly construed, the commerce power is not the equivalent of the police power possessed by the States, and it cannot be used to support governmental activities totally unrelated to the purposes for which the commerce power is being exercised. However, because of the unqualified sweep of Article IV, and because of the plain relationship of the options considered here to the Congressionally authorized use of the lands in question, this theoretical concern for exceeding the bounds of the commerce clause will have no practical impact on any proposals we are considering.

#### C. Jurisdiction Over Federally Owned Lands

There are several theoretical approaches to defining the types of jurisdiction of the United States over its various lands. These theories

and the legal history behind them have been spelled out in great detail in two major studies: Jurisdiction over Federal Areas within the States, Report of the Interdepartmental Committee for the Study of Jurisdiction over Federal Areas within the States (Part I, 1956, Part II, 1957), and Federal Legislative Jurisdiction, Report Prepared for Public Land Law Review Commission by the Land and Natural Resources Division of the Department of Justice (1969). The Report of the Interdepartmental Committee set forth the four types of jurisdiction we shall discuss in a moment, and the later report reviewed the history and gave a picture of present federal practices.

There is little need here to go into all this history. For one thing, the history illustrates that practical accommodations have been more important than the articulation of legal theories to support them. That is, when a state has in fact exercised law enforcement powers over unoccupied public lands, lawyers asked to justify the practice have been able to supply adequate supporting rationales. For another, recent policy determinations have made the present situation reasonably clear.

The Interdepartmental Committee categorized the myriad of federal-state jurisdictional arrangements into four major categories:

- Exclusive Legislative Jurisdiction. Congress has the sole authority to enact laws for the area. State and local governments have no further jurisdiction to enact laws, although state and local process will be recognized for cases arising elsewhere.
- Concurrent Legislative Jurisdiction. Both federal and state governments have the right to enact and enforce laws, with conflicts between the two being resolved in favor of the federal government under the Supremacy Clause.
- Partial Legislative Jurisdiction. The State has ceded some powers to the federal government while reserving others, which it exercises either exclusively or concurrently with the federal government.
- Proprietorial Interest Only. The federal government exercises no legislative jurisdiction over the land, holding it in a manner analogous to that of a private landowner. The State

retains full jurisdiction to enact and enforce laws, although no State law can interfere with the constitutional purposes for which the United States holds the land.

It is important to understand that these four categories are conceptual constructs of the Interdepartmental Committee rather than long-standing legal categories. The terms defined above have not been consistently employed in the fashion used by the Committee. For example, the word "proprietary" was deliberately chosen to avoid use of the more common term "proprietary," which is used in municipal law to describe governmental property ownership and management not based on the government's sovereign powers. The United States has no "proprietary" holdings in that sense.\*

The interdepartmental Committee was faced with the problem of organizing thousands of different arrangements, many of them very vague and many others very specific, into some generalized categories useful for analysis and further policy development. One of the problems that had prompted creation of the Commission was the inconsistency in practice in defining the type of jurisdiction over newly acquired federal property.

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\*State courts frequently contract "proprietary" with "governmental" in cases on the tort liability of state and local governmental bodies. The distinction is important because of the doctrine of sovereign immunity, which bars unconsented suits against the sovereign. To mitigate the harshness of the sovereign immunity doctrine, many states have held governmental bodies acting in a "proprietary capacity" to the standards expected of an ordinary person. This approach has created a morass of conflicting holdings on what is "governmental" and what is "proprietary." For example, is it "proprietary" or "governmental" for a city to operate an amusement park?

The federal courts have consistently rejected this distinction, holding instead that the United States acts only in a governmental capacity, never in a proprietary capacity. Thus the United States cannot be sued without its consent. The two major waivers of federal sovereign immunity are the Federal Tort Claims Act, 28 U.S.C. 2671 et seq. and the Tucker Act, 28 U.S.C. 1346.

Historically, there had been a marked shift in Congressional policy but not in administrative practice. In 1828, Congress had authorized the President to seek exclusive jurisdiction. However, in 1940, Congress created a statutory presumption against exclusive jurisdiction in the absence of some specific action to obtain it. (40 U.S.C. 355.) Despite the clear Congressional policy, administrators continued to seek exclusive, concurrent, or partial jurisdiction. One of the main thrusts of the Interdepartmental Commission's work was that there should be a consistent policy of seeking the least amount of jurisdiction necessary for a particular acquisition. In most cases, it is sufficient for the United States simply to assert its proprietorial interest, leaving legislative jurisdiction in the State.

In the Corps of Engineers projects with which we are concerned in this study, the United States has only a proprietorial interest.

#### D. Sources of Criminal Law

The criminal law applicable in any given place is enacted by the sovereign exercising legislative jurisdiction over that place. Where the United States is exercising exclusive or concurrent legislative jurisdiction its laws will be given effect. Where the State has retained concurrent or partial jurisdiction, its laws will be given effect. Where the United States asserts only a proprietorial interest, the State criminal code will be the effective criminal code, with a major exception of particular importance to this study. This exception can be better understood with a short discussion of the nature of federal criminal law.

Because the United States is a sovereign of limited and enumerated powers, it has never developed a comprehensive criminal code. Such a code is now being considered by Congress, but the criminal statutes now on the books pertain to the protection of major federal powers or interests. There are, for example, laws protecting the postal service, national banks, interstate commerce, currency, and so forth. And, acting

under its Article IV powers, Congress has promulgated codes for various territories and possessions. The District of Columbia Code is an example. But there is not a comprehensive code covering the details of all offenses that may be committed on property of the United States.

The problem of filling in the details has been handled in one of three ways. Where the United States is exercising exclusive or partial jurisdiction and precludes the enforcement of state laws by the state, the Assimilative Crimes Act takes effect. It reads as follows:

Whoever within or upon any of the places now existing or hereafter reserved or acquired as provided in section 7 of this title, is guilty of any act or omission which, although not made punishable by any enactment of Congress, would be punishable if committed or omitted within the jurisdiction of the State, Territory, Possession, or District in which such place is situated, by the laws thereof in force at the time of such act or omission, shall be guilty of a like offense and subject to a like punishment. (18 U.S.C. 13.)

The section 7 referred to defines "special maritime and territorial jurisdiction of the United States" as used in the Criminal Code.

The effect of the Assimilative Crimes Act is to convert what would otherwise be state offenses into federal offenses. The state code in effect becomes part of the applicable federal law. But because of the definition of special maritime and territorial jurisdiction, the Assimilative Crimes Act is regarded as operative only where the United States has exclusive, concurrent, and perhaps partial jurisdiction. The issue is not crystal clear because the Criminal Code uses the words "exclusive or concurrent jurisdiction" and then goes on to describe conditions as partial legislative jurisdiction. The Code provision was written long before the work of the Committee.

The second means of filling in the details of the criminal law is to rely on the state law as directly applicable on federal lands. Where the federal government exercises a proprietorial interest only, the state criminal code is regarded as having full effect. This differs from the

Assimilative Crimes concept in that the state law is not regarded as federal law or enforced through the federal courts. It remains state law enforceable by state law enforcement officials in state courts. The only qualification to be noted is that state law cannot be used to interfere with or disrupt legitimate federal functions.

The last means of filling in the details is the most important for our purposes here. It is an ordinary practice for Congress to give administrative officers powers to promulgate regulations which have the force and effect of law. This enables administrators familiar with the specific needs of particular programs to design regulations to meet those needs without going through the cumbersome process of seeking further Congressional action.

It is very important to understand that these administrative regulations become part of the criminal law applicable to a given area. The process employed to enforce them is criminal process; the sanctions employed are criminal sanctions. The wording of the statutes with which we are primarily concerned illustrates the point:

The water areas of all such projects shall be open to public use generally for boating, swimming, bathing, fishing, and other recreational purposes...all under such rules and regulations as the Secretary of the Army may deem necessary including but not limited to prohibitions of dumping and unauthorized disposal in any manner of refuse, garbage, rubbish, trash, debris or litter of any kind.... Any violation of such rules and regulations shall be punished by a fine of not more than \$500 or imprisonment for not more than six months, or both. Any persons charged with the violation of such rules and regulations may be tried and sentenced in accordance with the provisions of section 3401, of Title 18. (84, Act of Dec. 22, 1944, 58 Stat. 889, as amended by 234, Act of Dec. 31, 1970, PL. 91-611, 84 Stat. 1833, 16 U.S.C. 460d.)

The constitutionality of having an administrative officer establish what are in effect criminal laws, ordinarily a legislative prerogative, was upheld in United States vs. Grimaud, 220 U.S. 506 (1911).



Under the general provisions of Title 18 of the United States Code, the violations mentioned in the foregoing passage are petty offenses, a form of misdemeanor. The code provides the following general definitions (18 U.S.C. 1):

Notwithstanding any Act of Congress to the contrary:

(1) Any offense punishable by death or imprisonment for a term exceeding one year is a felony.

(2) Any other offense is a misdemeanor.

(3) Any misdemeanor, the penalty for which does not exceed imprisonment for a period of six months or a fine of not more than \$500, or both, is a petty offense.

One further point should be made about the Secretary of the Army's power to define petty offenses. Because the regulations are creating criminal offenses, they will be given strict construction, as will the statute authorizing their issuance. Thus regulations proscribing conduct unrelated to the operation of a project (e.g., a rule prohibiting the counterfeiting of state lottery tickets) would be vulnerable to legal challenge, as would vaguely drawn regulations (e.g., a rule against "vagrancy"; cf. Papachristou v. City of Jacksonville, 405 U.S. 156 (1972)).

But regulations carefully drawn to proscribe conduct interfering with a project's lawful purposes--"boating, swimming, bathing, fishing, and other recreational purposes"--would be valid. Because of the pitfalls of legislative drafting, it would be prudent to base the specific wording of the regulations on well-recognized models such as the American Law Institute's Model Penal Code (Proposed Official Draft, 1962). Article 250 of the Model Penal Code, "Riot, Disorderly Conduct, and Related Offenses," would be particularly helpful.

#### E. Degrees of Enforcement Power

Different public officials have been given different degrees of responsibility and authority for enforcing criminal statutes. Within

constitutional limitations, the degree of authority to be given any given official depends upon his statutory authority. The amount of his power he delegates to subordinates is a matter for administrative decision.

But whatever formal power a particular officer may have been officially given, he, like everyone else, has certain common law rights. A government official vested with no formal authority still has the right to make a citizen's arrest under appropriate circumstances. He does not lose that right by receiving some formal authority to issue citations or make arrests under other circumstances.

The right is a right to make an arrest (which is taking a person into custody for the purpose of initiating criminal proceedings against him) without a warrant for a felony or for a breach of the peace taking place in his presence. This latter provision is of particular pertinence to our study here. It means that Corps personnel have common law power to intervene in a breach of the peace occurring in their presence. They need no special authority to act, although there are some marginal advantages to having such authority.\*

Apart from the citizen's arrest concept, public officers can be given several different levels of authority and responsibility in enforcing criminal laws. The lowest level is the authority to issue citations, which are formal notifications to the person served to appear before a magistrate at a certain time or to suffer certain designated

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\*The legal advantages of having formal authority to act pertain primarily to felonies. The common law rule is that a law enforcement officer may arrest without a warrant if he has reasonable grounds to believe that a felony has been committed and that the arrestee committed. A private citizen will be liable for false arrest if a felony has not in fact been committed, even though he had reasonable grounds for believing one had been committed. (Perkins on Criminal Law, 2nd ed. (1969), pp. 978-979.) This common law rule has been modified in many states, and officers with limited arrest powers should be instructed in the legal ramifications of attempting felony arrests without a warrant. As a practical matter, having some legal status to make arrests will usually lead to resolution of doubtful factual issues in favor of the officer.

consequences. The citation is a step to initiate the criminal process. It is used in lieu of arrest in many circumstances, the most familiar being in traffic enforcement. But the purpose is the same, to subject the person to the judicial process.

The next degree of authority is the authority to make arrests. As already noted, an arrest is taking a person into custody for the purpose of initiating the criminal process against him. Because of the obvious disruption of the arrested person's activities, arrest is plainly a serious matter.

The next levels of enforcement responsibility pertain more to the extent of the arresting party's involvement in the criminal process than they do to his basic authority. His power to arrest is a drastic power. But his other responsibilities may include investigation of suspected offenses; collection, preservation, and presentation of evidence; crime prevention; procurement and execution of warrants; and collaboration with the prosecuting attorney. When we speak of "full enforcement" powers, we are usually referring to this broader range of responsibilities. Their proper performance will obviously require a substantial amount of training.

#### F. Agencies with Enforcement Power

Consistent with the principle that the United States is a sovereign with limited and enumerated powers, there are few federal agencies with anything resembling universal enforcement powers. Most have very specifically defined jurisdictions. The Drug Enforcement Agency concentrates on narcotics and dangerous drugs. The Secret Service focuses on counterfeiting. The Internal Revenue Service and its divisions are concerned with tax collection. The statutes within the scope of the Federal Bureau of Investigation's responsibility are so miscellaneous in quality that it seems that the Bureau has comprehensive federal enforcement authority, but in fact it does not.

Only the United States Marshals have a general, non-specific arrest authority, but a careful examination of that authority and of the

Marshals' actual practices will show them to work primarily in support of the courts. They have a responsibility to serve and execute warrants, but the purpose of that activity is to protect the integrity of the judicial system. The Marshals do not undertake general law enforcement responsibilities.

The enforcement power of the Corps of Engineers with which we are here concerned was provided by the Flood Control Act of 1970, the relevant passage of which reads as follows:

All persons designated by the Chief of Engineers for that purpose shall have the authority to issue a citation for violation of the regulations adopted by the Secretary of the Army, requiring the appearance of any person charged with violation to appear before the United States Magistrate, within whose jurisdiction the water resource development project is located, for trial; and upon sworn information of any competent person any United States magistrate in the proper jurisdiction shall issue process for the arrest of any person charged with the violation of said regulations; but nothing herein contained shall be construed as preventing the arrest by any officer of the United States, without process, of any person taken in the act of violating said regulations. (16 U.S.C. 460d.)

It is clear that responsibility for enforcement of Corps administrative regulations rests with the Corps. But the statutory authority is limited to issuance of citations. It does not extend to arrest. For broader enforcement functions, the Corps must turn to other agencies. For specific offenses within the scope of some other agency's jurisdiction, such as moonshining, the Corps can turn to that agency. But what of more general criminal offenses? And what of arrests?

In lands in which the United States holds only a proprietary interest, state and local officials can enforce state and local laws. But if the offense in question is a federal rather than a state offense, state courts have the power to issue warrants to state officers to bring the offender before the federal courts (18 U.S.C. 3041). This provision goes back to the Judiciary Act of 1789, when the federal government had no enforcement capacity of its own and was totally dependent upon state officials.

G. Conclusion

At the present time, the Secretary of the Army can extend the scope of his regulations to include conduct interfering with the lawful purposes of a project. The Chief of Engineers can authorize issuance of citations for violations of these regulations.

Under common law powers to make a citizen's arrest, Corps personnel can make arrests for breaches of the peace taking place in their presence. However, there are serious questions of the prudence of exercising this particular right. Circumstances to be taken into account are the adequacy of training to make arrests, the availability of authorized and trained personnel, and the seriousness of the breach of the peace.

If the Corps of Engineers wants its personnel to have arrest as well as citation authority, it must seek further statutory authority. A precedent can be found in 16 U.S.C. 10a, which gives the personnel of national parks the power to arrest for violations of regulations issued by the Secretary of the Army (sic) under 16 U.S.C. 9a.

If the Secretary of the Army wants authority to draw regulations creating misdemeanors greater than petty offenses, then he must seek further legislation. However, his present authority is probably adequate for most purposes.

## Chapter 11

### ALTERNATIVES FOR THE ADMINISTRATION OF VISITOR PROTECTION AT CORPS OF ENGINEERS LAKES

#### A. Introduction

Based on the assessment of the inadequacies of the current level of law enforcement and visitor protection afforded recreation users at Corps lakes, the present section will discuss alternatives for administering an effective visitor protection program at the lakes that meets the standards established in Chapter 8.

The alternatives chosen for discussion, are being considered because of their potential applicability to solving the current problems at the Corps of Engineers lakes. The study team selected the following alternatives as a result of a combination of factors including: 1) the experiences of other national recreation agencies in providing law enforcement and visitor protection; such as, the National Park Service, U.S. Forest Service, and the Bureau of Land Management; 2) the current scope of work and conferences with OCE; and 3) the "transference" of effective courses of action implemented by other organizations that PRC/PMS has assisted in law enforcement efforts.

The alternatives to be discussed include the following:

Alternative I. Continue the status quo.

Alternative II. For the Corps of Engineers to withdraw from supplying visitor protection altogether and allow the responsibilities and operations to be provided by another agency.

Alternative III. To supplement current Corps of Engineers visitor protection services with assistance from other agencies.

Alternative IV. Increase the authority and visitor protection responsibilities of the Corps of Engineers.

Alternative V. A combination of Alternatives III and IV.

The advantages and disadvantages of each alternative will be evaluated to determine their feasibility in terms of the following criteria:

- Overall range of services, resources, and capabilities.
- Timeliness of service.
- Cost-effectiveness of service.
- Ease of implementation.

In addition these advantages and disadvantages will be assessed in relation to the impact on the Federal government, state and local agencies, Federal and local court systems, and the recreation users.

Discussion of the range of application of these alternatives, will primarily pertain to Class A and B lakes. Existing problems at the C and D lakes are, in some cases, not the Corps responsibility and, in other cases, must be handled as a specific case (e.g., national security problems). Additionally, the visitor protection problems, as defined by the study, are almost non-existent at the locks and dams open for tourism and sightseeing. Thus, the emphasis, in evaluating the feasibility of the various alternatives, is aimed at the major visitor protection problems found during the study.

ALTERNATIVE I: MAINTAIN STATUS QUODiscussion

The first and most obvious alternative which the Corps can pursue is maintenance of the present state of affairs. Certainly this is the easiest course to follow as it does not require any direct action on an organizational or programmatic level. The concept of "change" has become a byword for "progress" in our society, if not a way of life. Yet, organizational and management literature is replete with case studies of "progress" which has had little or no impact or a regressive influence on the system or the products in question. A consideration of maintaining the status quo, therefore, should not be rejected out-of-hand, but given analysis as any other reasonable alternative. Accordingly, there are a number of advantages and disadvantages associated with the decision to pursue this course of action.

Costs

To continue the current course of action obviously will require no additional funds; however, it is possible to relate the costs of this alternative to the overall costs of crime and vandalism currently at the lakes, as detailed in Chapter 7.

Advantages of Alternative I.

The advantages of this alternative are primarily lodged in the lack of increased administrative and operational responsibilities which would otherwise have to be addressed in action-oriented decisions.

Changes in conjunction with decisions to alter present approaches to law enforcement undoubtedly will require a series of definitive and planned steps on administrative and organizational levels. Regardless of the utility and prudence of these moves, they will undoubtedly cause some inconvenience and organizational disturbance during the transition. A decision to maintain the status quo will avoid these problems. Thus, advantages of this alternative include the following:



- Personnel will remain unaltered thus avoiding the degree of confusion associated with staff realignment, filling new positions, altering task assignments and responsibilities, adding to or subtracting from staff, and adjusting pay scales, fringe benefit packages and related benefits.
- Field operations will remain substantially the same avoiding the development of new policy and procedures, training and staff development for assumption of added responsibilities and requirements, and administrative concerns and technical assistance requirements for the uniform and efficient implementation of new operational methods and routines.
- Equipment, resource acquisitions and associated costs will remain at the same level such as those that otherwise would be expended on improved records maintenance systems and related law enforcement/visitor protection services and equipment.
- There will be less restrictions on the visitor to Corps lakes. While increased visitor protection and available law enforcement appears to be of benefit to most of the public, it also means increased enforcement of all regulations and greater restrictions on the use of Corps services and facilities as well as on personal property and conduct. To a percentage of the public, this restriction would not be welcome and would not be imposed under Alternative I.
- Related components of the criminal justice system will not be required to expand or otherwise increase services or facilities in response to improved Corps law enforcement. Federal magistrates, state and local law enforcement agencies could maintain present modes of operation, budgets, personnel, and related resources. For example, where subsidized, law enforcement might otherwise be considered as an "action" alternative, alternative I would continue to maximize or capitalize upon the use of "free" services which local law enforcement agencies are obliged to provide.

#### Disadvantages of Alternative I.

The disadvantages associated with inaction are generally spelled out in the statement of the problem in Chapter 6 of this report. In essence, inaction will serve to maintain the problems as noted there and, in some cases, hasten their seriousness and complications. On the basis of that discussion, it should be reiterated that while the level and seriousness of the problem at Corps lakes has not been viewed as a "critical" one, the Corps inadequacy to cope with the situation as it exists is somewhat more serious. The following disadvantages associated with Alternative I should be considered from both of these perspectives. They include:

- Rising crime is an inevitability for Corps recreation areas as more and more individuals vie for scarce recreation facilities and as the Corps expands its array of services and opportunities at water development projects. The experience of the National Park Service has demonstrated that increasingly urbanized recreation areas can produce a corresponding increase in visitor protection and law enforcement problems. To this extent, failure, in any substantive manner, to respond to law enforcement needs will tend to magnify the volume and the effects of crime in the future.
- Workloads involving law enforcement will increase as a result of increased law enforcement problems. Probably more serious than actual workloads is the failure to resolve the problems associated with crime and the role of the ranger. Without a more articulate concept of the policy associated with Title 36 enforcement, it will continue to be sporadically and inconsistently applied to the public.
- Training and resources necessary for the enforcement of state laws and federal regulations and protection of the public will continue to be inadequate. The duties and responsibilities of the ranger regarding law enforcement are ambiguous, and as such, the skills necessary for job performance are not precisely known. Training will continue to be unresponsive to these needs and personnel recruitment and performance evaluation based upon indeterminant criteria.
- The Corps goal for recreation resource management will remain imprecise and subsequent developmental policy a product of inadequate planning. Concerns specific to law enforcement in environmental design will continue to be implemented on a sporadic and unplanned basis.
- Organization for the delivery of law enforcement services will remain more a product of convenience and availability than of planning and design. The availability of law enforcement agencies, their willingness to provide service, and their available resources will continue to determine the level of law enforcement at each Corps lake. This is in opposition to a system of service based on need and conformance with established law enforcement standards.
- Crime reporting and recording will remain a product of personal volition and uncontrolled discretion at the project level, and incident statistics will reflect this more than actual criminal acts or violations. For the Corps, this will continue to cause management and planning for law enforcement to be unresponsive to actual situations at each lake. For the visitor it will continue to result in the perpetration of crime, which is unrecorded at the national level and for which remedial action is not being taken.

- Vandalism and ecological damage as primary concerns of the Corps will continue to be committed without any significant response in either enforcement or countermeasures. The latent and unreported costs of these acts will continue to cost the Corps in excess of \$12-17 million per year nationwide.
- Responsibilities of the Corps both to the community in which lakes are located and to the public will continue to be inadequately fulfilled in the areas of law enforcement and visitor protection. The result will be a failure to increase security and protection and a reduced total recreation experience for all users concerned.

#### Summary

For the Corps to follow this alternative would be most advantageous from a cost standpoint. However, the obvious social and environmental vitiation demands action. If the Corps does not plan and direct this action, it might be compelled to do so by other environmental or social agencies. In this case the Corps would have to expediently implement action not of their choosing or planning.

ALTERNATIVE II: FOR THE CORPS OF ENGINEERS TO WITHDRAW FROM SUPPLYING VISITOR PROTECTION ALTOGETHER AND ALLOW THE RESPONSIBILITIES AND OPERATIONS TO BE PROVIDED BY ANOTHER AGENCY

Discussion

Consideration of this alternative differs slightly from alternative I--To Maintain The Status Quo. By maintaining the status quo, the Corps rangers would continue to perform a quasi-law enforcement operation. That is, some rangers are aggressively providing visitor protection and enforcing Title 36, which indirectly serves as an order maintenance vehicle. More important, however, is the fact that by these actions the Corps is tacitly increasing its responsibilities to provide continued visitor protection.

Alternative II would serve to clearly define the objectives of the Corps in providing recreation-resource management and leave the law enforcement and visitor protection responsibility to another agency. Precedent for this type of dual agency recreation management has been set by many city park and recreation agencies, such as the San Francisco Recreation and Parks Department, which leaves the law enforcement duties at Golden Gate Park to the San Francisco Police Department. Considering that the implementation of this alternative relies on the availability of law enforcement services, there are three sub-alternatives to be discussed as follows:

- II-A Allow local law enforcement to assume all law enforcement related responsibilities.
- II-B Request other Federal agencies to provide law enforcement.
- II-C Establish a Federal park police agency with jurisdiction over Federal lands.

The primary attraction of this general alternative is the lack of cost for the Corps of Engineers to implement this alternative. However, because of this lack of cost, it may be extremely difficult to induce a law enforcement agency to supply a service which meets the standards for the lakes. Even though the local police have jurisdiction at the lakes, the level of service may be inadequate, as found in many of the field visits.

A discussion of the specific advantages and disadvantages of each sub-alternative will follow.

Sub-Alternative II-A: Allow Local Law Enforcement to Assume All Law Enforcement Related Responsibilities

Discussion

Implementing this sub-alternative will serve to increase local law enforcement service slightly, but in general, service will remain on an emergency calls-for-service basis.

Cost

The cost of each sub-alternative fluctuates, but in general, the Corps would not be spending any funds to reimburse other law enforcement agencies for their services. However, the Corps may still wish to add additional rangers for resource management and protection. The advantages and disadvantages of the sub-alternatives must be evaluated aside from this issue, but it should be kept in mind for evaluation of the various overall alternatives with each other.

A cost to be considered, however, must be the current cost of losses due to crime and vandalism which one could anticipate would remain constant or increase if law enforcement services are not guaranteed.

Advantages of Sub-Alternative II-A

- Low cost of implementation.
- Local law enforcement is trained and maintains full police powers.
- Local law enforcement generally has available backup and support services.
- No increase in Federal caseload.
- As most visitors to Corps projects are from the local areas, problems at the lake will be considered local problems rather than problems specific to the Corps itself.

- Visitors will have a minimum of infringements on their recreation activities.
- The Corps will not have to develop its own law enforcement program or policies.

#### Disadvantages of Sub-Alternative II-A

- Costly for local government.
- Difficult to ensure adequate service.
- Visitors and resources will not be secure.
- Lack of uniform service.
- Local law enforcement is understaffed.
- Response time, in emergencies, may be slow.
- Local law enforcement would not handle resource protection or visitor information.
- Local law enforcement and local courts may not "enforce" the law against citizens in their jurisdiction committing offenses on Corps property as stringently as the Corps, especially with cases involving environmental damage.
- The level and quality of service may vary as a new sheriff is elected or a new police chief appointed.
- The continued imbroglio of law enforcement services is costly and detrimental to visitors and natural resources.

#### Sub-Alternative II-B. Request Other Federal Agencies to Provide Law Enforcement

#### Discussion

This sub-alternative would involve the utilization of current Federal law enforcement forces; such as, the U.S. Park Police, the Government Services Administration (GSA) Police, U.S. Marshal Service, or the Federal Bureau of Investigation (FBI). There are several advantages to using such well-trained police forces; however, the major detriment lies in the difficulty of inducing these agencies to supply the service.

Cost

In terms of the unit-cost for the service alone, the federal costs as opposed to the local costs, would be far greater. While the Corps would still not be responsible for reimbursement, this issue is important for the evaluation of the alternatives. Specific advantages and disadvantages of this sub-alternative will be described.

Advantages of Sub-Alternative II-B

- Establishment of administrative arrangements for services with one or more of these agencies would be relatively simple.
- A Federal level law enforcement agency would be a more suitable approach from the perspective of administration and due to the national scope of the Corps law enforcement needs.
- These agencies are experienced in the administration and delivery of law enforcement services; and, NPS has the particular advantage of experience unique to the recreation environment.
- No added expense to the Corps.
- These agencies have better support services, although the timeliness of this support is questionable.
- No new administrative mechanisms to be implemented by the Corps for law enforcement.
- No necessity and burden of maintaining criminal records.
- Visitors will feel protected if adequate service is supplied.

Disadvantages of Sub-Alternative II-B

- Manpower ceilings for these Federal agencies may not allow the assumption of added responsibility for Corps law enforcement.
- Costly to the agency providing services.
- The role and mandate of some of these agencies may preclude their use unless a significant amount of administrative realignment is performed and some enabling legislation passed. These are discussed in turn:
  - The U.S. Marshal's duties and power consist of attendance upon Federal Courts, service of the Federal process, and transportation of Federal prisoners (Chapter 37, Title 28

U.S. Codes, Section 569). These officers are not specifically trained in preventive law enforcement as well, and would require a considerable amount of retraining. Lately the U.S. Marshal Service has developed a special operations group to quell disturbances on Federally-owned property. However, their use is highly restricted and very expensive for the type of service that is being considered for Corps lakes.

- The G.S.A. may be restricted in their usage due to U.S. Codes (40 USC, 318) which state that the G.S.A. can appoint guards on Federal lands with concurrent or exclusive jurisdiction. This may require change in the G.S.A. charter to serve Corps lakes which have proprietorial jurisdiction.
- The Federal Bureau of Investigation is investigatory in purpose and is not equipped or prepared to provide general preventive law enforcement on a wide-scale basis.
- The National Park Service jurisdiction would require some form of alteration to incorporate land owned by the Corps of Engineers. While the National Park Service is the most likely candidate for the assumption of recreation law enforcement duties, their willingness to accept this massive additional burden is highly questionable.
- Regardless of the agency which might be selected, there is a significant propensity involved in this approach for policy-making decisions to be usurped by the agency providing law enforcement services to the Corps. In this respect there is a significant risk that the Corps will lose a degree of internal control with regard to administration, organization, and planning.
- On procedural level there could be considerable problems in terms of recruiting, screening and training a large body of additional persons for any one of these Federal agencies and deploying them throughout the United States on a seasonal basis.
- Costs in terms of salaries and fringe benefits for these individuals would be greater than those of either state or local law enforcement agencies.
- Federal magistrates caseload would increase.



Sub-Alternative II-C. Establishment of A Federal Park Police Agency with Jurisdiction over Federal Lands

Discussion

An overall systemic approach for providing law enforcement and visitor protection at the federal level is the establishment of a new, special park police organization. Officers under such an organization would have full law enforcement powers. Jurisdiction of the Federal Park Police would primarily be limited to Federal lands and waters used for recreation and related purposes (such as historic areas and fish and wildlife reserves). Mutual aid service agreements could be made with state and local law enforcement agencies as well as with other federal law enforcement agencies.

This alternative involves the separation of full law enforcement powers from park rangers and other management and program personnel. However, the Federal park Police officers would be trained to deliver enforcement services in a manner suitable and appropriate to the particular uses and environmental situations prevailing at federal recreation areas. Ranger personnel would remain responsible for providing visitor and resource protection.

The special park police force system also would be facilitated through inauguration of an inter-agency coordinating committee or council. Members of the council would consist of representatives of agencies whose lands are serviced by the park police. Depending upon the level of organization, the inter-agency committee would be established either separately or housed within a lead agency whose representative would be chairman and provide staff services. The committee's role would be to establish policies and objectives for the organization and operation of the special park police, including a uniform interpretation and enforcement of laws and regulations in areas served.

There are three basic organizational options to establishing a Federal Park Police program. These are summarized as follows:

1. Extend services of an existing federal resource management agency, including:
  - a. Establishment of an inter-agency coordinating committee to advise on policy and practice of law enforcement at federal park and recreation areas.
  - b. Provision of a training program for law enforcement at federal park and recreation areas.
  - c. Provision of park police officers at federal park and recreation areas.
2. Establish a new special park police organization within (1) an appropriate resource management agency or (2) an independent position at the subcabinet level, including:
  - a. Establishment of an interagency coordinating committee to advise on policy and practice of law enforcement at federal park and recreation areas.
  - b. Provision of a training program for law enforcement at federal park and recreation areas.
  - c. Provision of park police officers at federal park and recreation areas.
3. Establish a sub-cabinet level Council on Park Safety (COPS) with authority to:
  - a. Establish uniform interpretation, policy, and practice of law enforcement services administered by the respective federal agencies managing park and recreation areas and facilities.
  - b. Train and certify agency personnel to serve as park police at their respective agencies installations and lands.
  - c. Establish a suitable badge and patch or other identification system to distinguish rangers having special law enforcement authority.

The following schematic explains the nuances of each organizational option:

SPECIAL FEDERAL PARK POLICE

|                                                           | Option<br>1                                                      | Option<br>2                                                      | Option<br>3                                                                                   |
|-----------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                                                           | Expand Existing<br>Federal Organization                          | Establish New<br>Federal Organization                            | Establish Council<br>To Standardize<br>Park Enforcement<br>Of All Federal<br>Federal Agencies |
| Role of<br>Inter-agency<br>Committee<br>On Park<br>Police | Policy-making<br>Coordinate<br>Standardize<br>Budget<br>Advisory | Policy-making<br>Coordinate<br>Standardize<br>Budget<br>Advisory | Policy-making<br>Coordinate<br>Standardize<br>Mandatory                                       |
| Operational<br>Functions                                  | Training<br>Enforcement                                          | Training<br>Enforcement                                          | Training<br>Certify Badge and<br>Patch on Respec-<br>tive Ranger Uni-<br>forms Only           |

While the study team is obviously not in a position to recommend that the Corps of Engineers attempt to promote this alternative, the idea is that the feasibility of the alternative may be evaluated for serious consideration by the federal land managing agencies.

Cost

The cost of establishing a special Federal Park Police would be comparable to the salary and overhead figures for the U.S. Capital Park Police. Expansion of training, size of police force, and equipment requirements would likely expand proportionally to existing costs.

Advantages of Sub-Alternative II-C:

- Standardized interpretation and enforcement of rules and regulations relating to visitor use of federal park and recreation areas.
- A better recording and accounting system would be provided both with criminal offenses and administrative expenses.

- Necessary concentration on crime prevention and law enforcement would be provided where needed and in a manner compatible with park and recreation management operation.
- Rangers would be relieved of law enforcement duties to concentrate on administering policies and regulations more closely aligned with visitor assistance activities and resource management duties.
- Would eliminate confusion of interpretation and execution authority between law enforcement and ranger personnel, including establishing a better understanding by visitors, non-federal law enforcement authorities, and the criminal justice system (courts).
- Elimination of the problem of overlapping law enforcement jurisdictions (federal-federal and federal-non-federal).
- Reduction in local court caseload.
- A highly improved base for professionalism in park law enforcement would be established.

Disadvantages of Sub-Alternative II-C:

- Implementation of this alternative would be a highly sensitive issue.
- Would require several years to implement.
- May in some instances duplicate satisfactory services already provided by federal and non-federal law enforcement organizations.
- Involves creation of another organization in the field of outdoor recreation which is already fragmented at the federal level.
- Increase in caseload for the federal court system.

Summary

The obvious advantage of implementing this alternative would be the considerable relief for the Corps from both a cost standpoint and responsibility for law enforcement services. These are serious obligations to be sure and should only be pursued by those interested and dedicated to the profession.

The primary disadvantage, for purposes of this study, is the length of time and difficulty associated with implementation. Nonetheless, this alternative should be given future consideration.

There are other ramifications of this alternative to be considered, but these are some of the more significant ones that can influence Corps organizational objectives. These matters are important in comparing the alternatives.

ALTERNATIVE III: SUPPLEMENTATION OF CURRENT CORPS OF ENGINEERS VISITOR PROTECTION PROGRAM WITH SUBSIDIZED ASSISTANCE FROM OTHER LAW ENFORCEMENT AGENCIES

Discussion

A third major alternative which is available to the Corps of Engineers involves supplementing current visitor protection services with subsidized assistance from other law enforcement agencies.

This approach is relatively common throughout the United States among agencies which maintain high levels or unusual forms of law enforcement problems but which cannot provide these services for themselves because of Federal manpower ceilings. The most frequent example of this practice involves the use of private security police by major corporate and retail enterprises, as well as by the smaller operations which frequently are the targets of crime.

For the Corps, there are several ways in which this practice can be approached from subsidy of local and/or state law enforcement, or retention of private police services, to subsidy of other Federal level agencies for use exclusively at Corps lakes. Each of these will be discussed in this section, and each can provide the additional level of personnel which has been called for in the manpower improvements discussion of this report.

While state and local law enforcement agencies and some Federal level agencies under law must provide assistance to Corps lakes as requested, this does not ensure their continuous presence at the lake or their ability to provide the level of law enforcement services that are often required. In the discussion of the problem, several matters were noted which bear review here. Although state and local law enforcement are providing services to the Corps, many are bound by limited budgets and personnel levels to provide only a minimal level of service to these areas. This is more often the case in rural areas where county sheriff's cannot afford to provide the level of services needed and are frequently

restrained by law from performing preventive patrol or surveillance. And too, many of these departments feel a primary responsibility to county residents who are in effect paying directly for their services. This is often a point of concern among these agencies who are caught between their obligation to community residents and their legal obligation to respond when called. But the basic problem under this situation is the fact that these agencies are not performing the level of preventive surveillance which is required in most instances; that is, the type of surveillance which is essential to the prevention of the significant number of potentially suppressible crimes which are presently being committed.

A similar situation holds true among state agencies that provide services but are frequently spread thin throughout the state and unable to receive additional finances for improving services specifically at Corps lakes. Federal agencies are available on call in particular situations, but provide no regular on-site duties and certainly no preventive law enforcement.

The proposals, as suggested in this alternative, involve providing required finances directly from the Corps to any one (or combination) of these agencies specifically for the purpose of ensuring adequate law enforcement at Corps projects. The specific sub-alternatives to be considered include:

- III-A Subsidy of local law enforcement
- III-B Subsidy of state level law enforcement
- III-C Subsidy of private policy
- III-D Subsidy of other federal law enforcement services

Each sub-alternative will be discussed separately in the remaining discussion.

Sub-Alternative III-A: Subsidy of Local Law EnforcementDiscussion

The first form in which this major alternative could be implemented would involve the subsidy of local law enforcement agencies (i.e., city and county) at each project location which have contiguous jurisdiction with the Corps. While this solution would serve to provide needed law enforcement services to the lake areas there are many problems involved in its implementation and the supervision of service delivery, as well as the basic quality of those services which are being purchased. The major asset of the approach, however, lies in the fact that it utilizes the services of established, trained, and equipped law enforcement agencies rather than requiring the Corps to establish its own duplicative organization. At the same time it leaves the function of recreation management to the Corps which is best equipped for this function.

Cost

Estimates for the costs to be incurred by local law enforcement vary considerably in urban and rural areas. The 1972 census found that the mean starting salary for patrolmen in cities over one million in population was \$10,497. Table 11-1 shows ranges of police patrolman starting salaries expressed as percentage of this mean starting salary. For larger county police, Table 11-2 displays average total county expenditures (FY 71-72) on police protection in states which contain a significant number of the Corps lakes. The full-time equivalent payroll and expenditures per employee are also detailed.

The information on these tables reflect the disparity in costs for police services between large western and northern cities and counties and small, rural areas. While the Corps lakes are typically spread throughout the nation, the discussion on analysis revealed that 70 percent of the A lakes were centrally located in the lower midwest and southern states. The police salaries in these states are generally below the average for the country. However, these local agency payrolls



Table 11-1

RELATIONSHIPS IN MUNICIPAL POLICE OFFICER  
STARTING PAY TO THE WEIGHTED MEAN OF STARTING SALARIES  
OF OFFICERS IN CITIES OVER 1,000,000 POPULATION  
BY BROAD REGIONS AND BY CITY SIZE, 1972

| City Population<br>Size Class | Weighted<br>Mean | Percent of Mean of Cities Over 1,000,000 |        |      |       |        |      |         |        |      |           |        |      |
|-------------------------------|------------------|------------------------------------------|--------|------|-------|--------|------|---------|--------|------|-----------|--------|------|
|                               |                  | West                                     |        |      | South |        |      | Midwest |        |      | Northeast |        |      |
|                               |                  | Low                                      | Median | High | Low   | Median | High | Low     | Median | High | Low       | Median | High |
| Over 1,000,000                | \$10,497         | -                                        | 99%    | -    | -     | 80%    | -    | 84%     | 94%    | 104% | 98%       | 100%   | 101% |
| 500,000 to 1,000,000          | -                | 82%                                      | 104%   | 126% | 73%   | 75%    | 78%  | 70%     | 82%    | 94%  | 79%       | 85%    | 91%  |
| 250,000 to 500,000            | -                | 85%                                      | 98%    | 111% | 69%   | 74%    | 79%  | 61%     | 73%    | 93%  | 76%       | 82%    | 87%  |
| 100,000 to 250,000            |                  | 69%                                      | 86%    | 103% | 57%   | 70%    | 83%  | 57%     | 75%    | 93%  | 76%       | 82%    | 87%  |
| 50,000 to 100,000             |                  | 60%                                      | 77%    | 94%  | 59%   | 70%    | 81%  | 69%     | 79%    | 90%  | 56%       | 72%    | 88%  |
| 25,000 to 50,000              |                  | 54%                                      | 75%    | 96%  | 48%   | 58%    | 69%  | 57%     | 72%    | 88%  | 56%       | 74%    | 93%  |
| 10,000 to 25,000              |                  | 51%                                      | 72%    | 93%  | 42%   | 60%    | 78%  | 53%     | 70%    | 86%  | 60%       | 75%    | 91%  |

(Source: International City Management Association, Municipal Yearbook, 1973.)

Table 11-2

COUNTY POLICE PROTECTION EXPENDITURES AND FULL-TIME EQUIVALENT  
PAYROLL BY SELECTED STATE TOTALS, and  
AVERAGE EXPENDITURE PER FULL-TIME EQUIVALENT EMPLOYEE

|                           | County Police Protection                            |                                                   |                                                         |
|---------------------------|-----------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
|                           | Total<br>Expenditures<br>FY 71-72<br>(in thousands) | Full-Time<br>Equivalent<br>Payroll<br>(Oct., '72) | Expenditures<br>Per Full-Time<br>Equivalent<br>Employee |
| Alabama                   | \$ 8,003                                            | 888                                               | 9,010                                                   |
| Arizona                   | 10,276                                              | 1,038                                             | 9,900                                                   |
| Arkansas                  | 4,030                                               | 547                                               | 7,370                                                   |
| California                | 178,906                                             | 12,493                                            | 14,320                                                  |
| Colorado                  | 6,355 <sup>1/</sup>                                 | 711                                               | 8,940                                                   |
| Connecticut <sup>1/</sup> | 74,398 <sup>1/</sup>                                | 5,977                                             | 12,450                                                  |
| Georgia                   | 20,854                                              | 2,032                                             | 10,260                                                  |
| Idaho                     | 3,053                                               | 413                                               | 8,480                                                   |
| Illinois                  | 26,154                                              | 2,419                                             | 10,810                                                  |
| Iowa                      | 5,704                                               | 600                                               | 9,510                                                   |
| Kansas                    | 5,758                                               | 680                                               | 8,470                                                   |
| Kentucky                  | 9,785                                               | 932                                               | 10,500                                                  |
| Louisiana                 | 26,948                                              | 2,583                                             | 10,430                                                  |
| Maine                     | 1,009                                               | 123                                               | 8,200                                                   |
| Massachusetts             | 786                                                 | 24                                                | 32,750                                                  |
| Michigan                  | 32,249                                              | 2,217                                             | 14,550                                                  |
| Minnesota                 | 13,361                                              | 1,179                                             | 11,560                                                  |
| Mississippi               | 5,623                                               | 589                                               | 9,550                                                   |
| Missouri                  | 13,408                                              | 1,376                                             | 9,740                                                   |
| Nebraska                  | 3,636                                               | 417                                               | 8,720                                                   |
| New Hampshire             | 612                                                 | 61                                                | 10,030                                                  |
| New York                  | 132,121                                             | 9,348                                             | 14,130                                                  |
| North Carolina            | 18,379                                              | 1,793                                             | 10,250                                                  |
| North Dakota              | 1,611                                               | 183                                               | 8,800                                                   |
| Ohio                      | 24,638                                              | 2,420                                             | 10,180                                                  |
| Oklahoma                  | 4,546                                               | 547                                               | 8,310                                                   |
| Oregon                    | 11,302                                              | 960                                               | 11,770                                                  |
| Pennsylvania              | 7,406                                               | 667                                               | 11,100                                                  |
| South Carolina            | 11,226                                              | 1,190                                             | 9,430                                                   |
| South Dakota              | 1,668                                               | 171                                               | 9,750                                                   |
| Tennessee                 | 7,699                                               | 801                                               | 9,610                                                   |
| Texas                     | 26,709                                              | 3,107                                             | 8,440                                                   |
| Vermont                   | 16                                                  | 2                                                 | 8,000                                                   |
| Virginia                  | 21,919                                              | 2,081                                             | 10,530                                                  |
| Washington                | 16,851                                              | 1,481                                             | 11,380                                                  |
| West Virginia             | 3,019                                               | 400                                               | 7,550                                                   |
| Wisconsin                 | 21,357                                              | 1,903                                             | 11,220                                                  |

<sup>1/</sup> Local Total.

(Source: U.S. Bureau of Census, and LEAA, Expenditure and Employment Data for the Criminal Justice System, 1971-72, GPO, 1974.)

may be so deflated that in order to spare a patrolman for special detail, he would have to be purchased in total. Thus, even though the billing rates appear low, the added expenses may be extreme.

On the other hand, 60 percent of the B lakes are located in the northern and northwestern states. While the police costs in these areas would be higher, the amount of service necessary is lower than the A lakes.

Based on the field visits, in this study, and previous management studies with local law enforcement throughout the country, the project team was able to design a base upon which to estimate various law enforcement costs in relation to the manpower necessary to sufficiently meet the standard level of service established for Corps of Engineers lakes. The following table reflects these costs estimates:

LOCAL LAW ENFORCEMENT COSTS FOR SERVICE AT CORPS LAKES

| Class of Lake              | Hours of<br>Seasonal<br>Service | Cost of <sup>1</sup><br>Seasonal<br>Service | Expenses<br>Mileage<br>@ 12¢ | Cost for <sup>3</sup><br>Remainder<br>of Year | Total       |
|----------------------------|---------------------------------|---------------------------------------------|------------------------------|-----------------------------------------------|-------------|
| Urban A Lakes <sup>2</sup> | 138,684                         | \$1,088,669                                 | \$ 88,128                    | \$ 51,000                                     | \$1,227,797 |
| Rural A Lakes              | 189,024                         | \$1,442,253                                 | \$146,880                    | \$154,000                                     | \$1,743,133 |
| B Lakes                    | 90,636                          | \$ 743,215                                  | \$ 66,334                    | \$ 62,250                                     | \$ 871,799  |
| Totals                     | 418,344                         | \$3,274,137                                 | \$301,342                    | \$267,250                                     | \$3,842,729 |

<sup>1</sup>Cost estimates include 50 percent overhead factor plus administrative costs and employee benefits.

<sup>2</sup>This class includes the unclassified lakes.

<sup>3</sup>May have to pay expenses to retain patrol on a sufficient calls for service basis. This is especially true in rural areas.

Thus, at a minimum, it would appear that local law enforcement expenditures would be nearly \$4 million, with the majority of the money being expended during the peak use season.

The selection of this alternative carries with it a number of advantages and disadvantages as follows:

Advantages of Sub-Alternative III-A

- Local law enforcement agencies are, by the fact of their presence, the most intimately familiar with problems associated with their locales and the lake.
- Local police are most frequently involved in the welfare of local constituents and familiar with the areas in question.
- These agencies are trained and maintain full police authority as opposed to most special or private police and some Federal law enforcement agencies.
- The idea of additional funds for the improvement of basic capabilities, equipment, and staff levels would be most appealing to many local law enforcement agencies.
- As most visitors to Corps projects are from the local areas, problems at the lake will be considered local problems rather than problems specific to the Corps itself.
- Lines of communication and reciprocal reporting between the Corps and the local police would be improved.
- Since the local police are being paid directly for their service, the Corps can be more assured of immediate response when needed and of required surveillance.
- The Corps will not be required to develop its own specific law enforcement contingent or add additional administrative support and, therefore, will avoid unnecessary duplication of services, and the organizational turmoil associated with developing this capacity.
- Relations between the Corps and the communities in which lakes are situated will be benefited due to the explicit recognition which the subsidy program will give to the joint nature of the local law enforcement problem.
- Centralized response will be insured to assist the lake user in case of emergency.

- Local police have access of support services (e.g., dispatching, detention).
- Law enforcement support and subsidy can be decreased when not in full use (e.g., off-season).
- Response capability from direct contact by campers.

Disadvantages of Sub-Alternative III-A

- For the Corps this solution to the problem of law enforcement is very expensive and incurs an added expense for services which are currently provided on a cost-free basis.
- It will be difficult to ensure the accountability of local police officers to Corps project managers with regard to the level of services requested and the level provided.
- There will be little uniformity of service on a national level, as this will vary with regard to the type and adequacy of law enforcement agencies at the local level, and this may adversely affect the recreation user.
- Local law enforcement agencies are often among the least well-equipped and trained. Adequate service in some cases may require more extensive expenditures and operational alterations than estimated.
- Many local law enforcement agencies are not required to undertake 400 hours basic training.
- Increase in local court caseload.
- There is little to ensure that subsidized service will be consistently utilized by local departments for the Corps lakes.
- Local law enforcement agencies may feel that they have an obligation or a duty to participate in Corps policy decisions. These may become apparent in situations involving the use of Corps lands (e.g., the use of public use areas for special events such as "rock" concerts).
- The level and quality of service may vary as a new sheriff is elected or a new police chief appointed.
- At a great many lakes the primary law enforcement officer in the surrounding area is a sheriff. These are constitutional or elected officers and are autonomous in comparison to a police chief who is answerable to a mayor or indirectly through a city council or county commissioners. In terms of subsidy this

means that, in the case of the county sheriff, the Corps will have to negotiate directly with the sheriff and will be almost completely reliant upon his personal attitudes and volition toward the delivery of service.

- Contractual arrangements may have to be developed with more than one agency in situations where the lake borders several jurisdictions. This would serve to compound all the previously mentioned problems associated with accountability and service delivery.
- In some cases, local law enforcement and local justices may not wish to "penalize" their constituents as extensively as the Corps deems necessary.

A possible solution to the multi-jurisdictional problem at the lakes is to negotiate with the local sheriffs and have one jurisdiction vested with special police powers or deputized by each of the other jurisdictions. This would be the easiest method, however, local politics may negate this attempt.

In order to gain a larger perspective of utilizing police agencies, the next alternative will evaluate the use of state police and agencies.

#### Sub-Alternative III-B. Subsidy of State Level Law Enforcement

##### Discussion

Sub-alternative III-B is essentially the same as the previous alternative except that it is aimed at the subsidy of state level law enforcement rather than that available through the localities. State level law enforcement is available through the various agencies of the State Police, State Highway Patrol or State Conservation Agencies. The advantages and disadvantages of this alternative are in many cases similar to those previously discussed, although with some significant differences.

##### Cost

One of the immediate differences is cost. While the previous table, in terms of hours of service to be performed and geographic weighting of expenses holds true with state agencies, their attendant overhead due

in large to an amplitude of support services, is much higher than local law enforcement. While the state agencies have the experienced manpower to allocate "residency" officers on a contractual basis, they also cost approximately 40-50 percent more than local police and sheriff's department. Thus, based on the previous table, the same level of service, contracted through state law enforcement agencies would cost between \$5.6-\$6 million.

While this cost, on the surface, appears extensive, it must be remembered that this is still almost 50 percent less than the total current costs of law enforcement and visitor protection being expended at Corps lakes. The main reason for this substantial cost benefit is that a single agency contract would eliminate the duplicated and overlapping efforts and services being extended at the projects. As the study team found in the field visits, there are as many as 10-12 different law enforcement agencies providing various degrees of service on and around the lakes.

Subsidizing one agency for continued, regular service, while it may exceed the Corps present expenditures, would be most beneficial to the local taxpayer and recreation user.

An evaluation of this sub-alternative raises the following points:

#### Advantages of Sub-Alternative III-B

- These agencies generally have total jurisdiction over law violations throughout the state irrespective of county or municipal boundaries. This will allow for a single contractual arrangement with an agency that can perform all law enforcement functions at the lake(s) regardless of the number of jurisdictions which are involved.
- State level law enforcement agencies are typically the most sophisticated in terms of training, equipment, and support services and are accustomed to the enforcement of laws of a geographic basis.

- State agencies are characteristically the best capable to recruit new personnel which would be required for operations at the one or more Corps lakes in the state.
- Concentration of law enforcement services through one centralized agency will allow the Corps to coordinate reporting and recording of crime data at a single level.
- Communications and information exchange between a state level agency will be more efficient than through many individual agencies.
- Law enforcement services will be more uniform throughout the United States where the number of agencies administering law enforcement are reduced.
- The continuity of services through state agencies is more ensured than they are at the local level where organizational stability is less defined.
- Use of a state level agency will be more cost effective in that these agencies will require less extensive start-up expenditures. All for example maintain 24-hour dispatch capability and sufficient support personnel to accommodate additional sworn personnel without the level of outlay that would be demanded by a number of local agencies which may require additional equipment or personnel.

#### Disadvantages of Sub-Alternative III-B

- More costly than using local law enforcement.
- State level agencies are less directly involved in the nuances of local law enforcement problems and are less likely to be familiar with the local populace and their particular desires.
- As in the case of local law enforcement officers, there is no complete assurance that subsidized personnel will always be utilized exclusively at the Corps lakes.
- Where state agencies do not maintain district barracks or other local offices, there will be a problem of reporting crime by the visiting public at Corps recreation areas and a delay in dispatch and response time.
- The tendency or perceived duty of state level law enforcement agencies to direct policy to Corps recreation areas may persist even at this level. This should be less prevalent at the state level, however, in that local interest groups will be weighted in the perspective of total state policy with regard to law enforcement assistance to the Corps.



While this alternative maintains some of the disadvantages cited previously with regard to the subsidy of local law enforcement, their magnitude and variation is significantly reduced. The primary advantage of state subsidy involves the reduced administrative problems which this arrangement will mean for the Corps, the increased uniformity of service, and increased capacity to provide adequate levels and quality of services, and the greater tendency of state agencies to account for services provided, as many of them are currently involved in contract services with other agencies.

#### Sub-Alternative III-C. Subsidy of Private Police

##### Discussion

While the major portion of police services in the nation are provided by public agencies, the private sector has been recently increasing. A current study noted that 36 percent of all security personnel were employed in the private sector.<sup>1</sup> The study also reflected that in 1969 there were seven private security employees for every ten public policemen in the country.

The increased demand for private security, has obviously been in response to increased crime and vandalism, but more significantly, the cost of private guards is far less than purchasing some of the expensive technical security devices flooding the market as a result of pressure from insurance companies.

In spite of this fact, even though local governments spend over \$5 billion a year for police protection, only a small percentage of this expenditure finds its way to private security. The results of a 1972 survey indicate that none of the cities queried had contracted with a private firm for total police services.<sup>2</sup>

One study, however, uncovered the existence of a contracted agreement between a private security firm and a Petersburg, Florida, parks and

recreation area for limited patrol services. Evaluation of the service was positive. Nonetheless, the contract was dropped after two years when the city installed a sonic alarm system.

Thus to qualify the previous statement, in the long run, with continued research and development in technical security, private security manpower may become obsolete.

#### Costs

Before describing the advantages and disadvantages for Corps use of private police, the costs should be discussed. The survey team found that the average billing rate that private security proposed to provide contract services for federal and state governments was \$5.50 per hour. This figure includes overhead, and employee benefits. Thus estimates for the use of private security forces at Corps lakes would be as follows:

|                            |               |
|----------------------------|---------------|
| Additional Personnel       |               |
| 418,344 hours of service   |               |
| @ \$5.50/hour              | = \$2,300,892 |
| Additional Expenses        |               |
| 2,511,183 miles @ 12¢/mile | = \$ 301,342  |
| Incidental Expenses*       |               |
| @ \$200                    | = \$ 116,800  |
| Total                      | \$2,719,034   |

Based on this assessment, the cost of private security police to provide service to meet the established standards at Corps lakes would be approximately \$2.7 million. Weighed against this figure, the specific advantages and disadvantages of the sub-alternative can be discussed.

#### Advantages of Sub-Alternative III-C

- Lower cost than local or state agencies.
- Organizationally responsive to Corps policy.

\*Other expenses such as uniforms, patches etc., may have to be purchased initially, but this item could be calculated into the overhead.

- Flexible; can be retained only when needed.
- Positive evaluation from specific recreation case experience.
- Minimal administrative problems for the Corps.
- On-site patrol and security ensures immediate response.

Disadvantages of Sub Alternative III-C

- The Corps will still have to spend time and effort to supervise these security personnel.
- Private security police possess no more police power than the current rangers.
- If the Pinkerton Act (1893) is still applicable, then the employment of private police by the U.S. Government is illegal (5 U.S.C. 3108).
- Private police may not have a vested interest in resource protection.
- Private police may not relate to the recreation perspective of the visitors.
- Most states only regulate the owners of private agencies and have no control over quality of employees.
- Private police may not emanate Corps objectives and policy.
- Visitors may not be able to receive park information (e.g., recreation information, first aid, tourist attractions, etc.) from these personnel.
- Private police would still have to rely on local or state law enforcement for backup and support services.
- May cause dissension from local law enforcement.
- "The typical private guard is an aging, white male, poorly educated, usually untrained, and very poorly paid. The total pre-work training, plus initial on-the-job training, is less than two days for many private security workers."<sup>3</sup>

This final disadvantage rather sums up the entire discussion. However, the most significant deterrent to implementing this alternative, if chosen, would be the Pinkerton Law, which was designed by Congress to prevent a national police force.

The final sub-alternative in this section involves discussion of the feasibility of engaging the law enforcement services of another government sister agency through administrative cooperation.

#### Sub-Alternative III-D. Subsidy of Other Federal Law Enforcement Services

##### Discussion

At present there exists a number of Federal level law enforcement agencies which could be considered for use at Corps of Engineers lakes, such as the U.S. Marshals, Government Services Administration Police, and the National Park Service. In all these cases law enforcement organizations and administrative operations have been established which could conceivably be expanded to meet the needs of the Corps. This approach carries the same factors which must be considered in the way of advantages and disadvantages that were considered for sub-alternative II-B.

##### Cost

The cost of this alternative may differ slightly because of the possibility of administrative trade-off's between agencies,; however, the basic cost of a straight reimbursement for services because of the extremely high government overhead, and possible per diem and travel expenses, in all probability, would be \$2-3 million dollars more than contracting with state agencies. This would raise the cost of using any Federal law enforcement services to \$8-9 million.

##### Advantages of Sub-Alternative III-D

- Establishment of administrative arrangements for services with one or more of these agencies would be relatively simple.
- A Federal level law enforcement agency would be a more suitable approach from the perspective of administration and due to the national scope of the Corps law enforcement needs.
- These agencies are experienced in the administration and delivery of law enforcement services; and NPS has the particular advantage of experience unique to the recreation environment.

- These agencies have better support services, although the timeliness of this support is questionable.
- No new administrative mechanisms to be implemented by the Corps for law enforcement.
- No necessity and burden of maintaining criminal records.
- Visitors will feel protected if adequate service is supplied.

Disadvantages of Sub-Alternative III-D

- Manpower ceilings for these Federal agencies may not allow the assumption of added responsibility for Corps law enforcement.
- Costly to the Corps.
- The role and mandate of some of these agencies may preclude their use unless a significant amount of administrative re-alignment is performed and some enabling legislation passed. These are discussed in turn:
  - The U.S. Marshal's duties and power consist of attendance upon Federal Courts, service of the Federal process, and transportation of Federal prisoners (Chapter 37, Title 28 U.S. Codes, Section 569). These officers are not specifically trained in preventive law enforcement, as well, and would require a considerable amount of retraining. Lately the U.S. Marshal Service has developed a special operations group to quell disturbances on Federally owned property. However, their use is highly restricted and very expensive for the type of service that is being considered for Corps lakes.
  - The G.S.A. may be restricted in their usage due to U.S. Codes (40 USC, 318) which state that the G.S.A. can appoint guards on Federal lands with concurrent or exclusive jurisdiction. This may require change in the G.S.A. charter to serve Corps lakes which have proprietorial jurisdiction.
  - The Federal Bureau of Investigation is investigatory in purpose and is not equipped or prepared to provide general preventive law enforcement on a widescale basis.
  - The National Park Service jurisdiction would require some form of alteration to incorporate land owned by the Corps of Engineers. While the National Park Service is the most likely candidate for the assumption of recreation law enforcement duties, their willingness to accept this massive additional burden is highly questionable.

- Regardless of the agency which might be selected, there is a significant propensity involved in this approach for policy-making decisions to be usurped by the agency providing law enforcement services to the Corps. In this respect there is a significant risk that the Corps will lose a degree of internal control with regard to administration, organization, and planning.
- On a procedural level there could be considerable problems in terms of recruiting, screening and training a large body of additional persons for any one of these Federal agencies and deploying them throughout the United States on a seasonal basis.
- Costs in terms of salaries and fringe benefits for these individuals would be greater than those of either state or local law enforcement agencies.
- Federal magistrates caseload would increase.

#### Summary

The use of subsidized law enforcement services at Corps of Engineers lakes is a generally prudent approach. Subsidized law enforcement allows for the strategic utilization of personnel in accordance with the level and nature of the law enforcement needed in any one particular area without incurring the administrative and organizational problems associated with these additional responsibilities. The point to be emphasized in this approach involves the fact that a significant number and variety of law enforcement agencies and personnel exist at present with established capabilities and experience. Utilization of these established agencies in any form avoids unnecessary and costly duplication of effort and overlap of power and authority. As previously indicated, however, there are a number of varieties of this approach which can be utilized, some of which are obviously more amenable to the purposes and needs of the Corps than others. The utilization of some form of subsidized law enforcement seems to be an approach worthy of close consideration.

A final point to be considered in terms of cost and adequate protection is that if the decision is made to utilize any of these subsidy alternatives, the Corps would be remiss in terms of the duties established in the standards chapter if they did not increase the ranger

manpower in addition to adding supplemental law enforcement. The manpower increase could be applied according to either plan suggested previously.

The point to be made is that this ranger increase, to protect resources, visitors, and assist law enforcement, should be considered both from the cost-consideration and overall program effectiveness perspective.

ALTERNATIVE IV: INCREASE THE AUTHORITY AND LAW ENFORCEMENT RESPONSIBILITIES OF THE CORPS OF ENGINEERS

Discussion

The objective of this alternative is to utilize existing Corps of Engineers personnel to provide law enforcement and visitor protection services at recreation projects under Corps control. There are basically three sub-alternatives associated with this major alternative:

- IV-A Grant full police powers to enforce federal and state laws to Corps of Engineers rangers.
- IV-B Increase the utilization of existing Corps of Engineers ranger's authority.
- IV-C Create and staff a separate Corps of Engineers Police Force to provide visitor protection and law enforcement services at Corps lakes.

A total of 320 rangers or equivalent are permanently assigned to the recreation resource lakes in the Class A and B category. Approximately, 256 of these individuals possess citation authority and have completed some type of three to eight-day citation training program.

In addition to these 320 rangers, a total of 615 seasonal employees are hired during the summer months. While these individuals are uniformed, the vast majority of them lack authority to issue citations.

From a law enforcement perspective, the rangers are very limited in their police powers being able to utilize only the power of administrative regulations and citizen's power of arrest, a right vested in all citizens, under certain conditions.

Typical duties of ranger personnel include the following:

- Prevent despoilment of natural resources as through timber poaching or unauthorized construction.
- Prevent private capture of public land.



- Prevent filling or grading of easement land.
- Improve project environment through tree and vegetation planting.
- Establish and mark out zones to prevent hazardous conflict in uses.
- Prevent unauthorized human habitation or camping.
- Prevent and control unauthorized vehicular traffic across project lands.
- Review concessionaire operations to prevent unauthorized uses.
- Public education and interpretation of project resources.
- Fish and wildlife management.
- Coordination with other state, federal and local agencies.
- Recreation management.
- Forestry management.
- Surveillance of project resources.
- Provision of emergency services.

As noted, these rangers are uniformed, and those with citation authority wear badges. None of the Corps rangers are armed with any sort of weapon. They are not authorized to make physical arrests. The limits of their authority extend to the issuance of warnings and citations for violation of administrative regulations.

Under the concept of proprietorial jurisdiction, the Corps ranger has no police powers unless he is appointed as a special police officer or sworn as a deputy sheriff in the county in whose jurisdiction the project is located. However, he is forbidden by Corps ER 190-2-3 to exercise such authority while on duty as a federal employee.

In effect, a park ranger, who is not deputized or appointed a special police officer, must act as a private citizen in effecting felony arrests for crimes under the exclusive jurisdiction of state courts.

This places the ranger at a serious legal disadvantage since he is not cloaked with the powers of a state peace officer and does not have the same legal protection as those peace officers (a point clearly discussed in Chapter 10). In short, aside from Title 36 citation authority, the ranger is no different from any other citizen, when it comes to law enforcement authority.

Further, while we cannot cite exact percentages, it is our distinct impression that the vast majority of Corps rangers have no particular desire to function as full-scale law enforcement officers.

Most rangers, based on the consensus of our field interviewers and some rare studies in the literature, perceive themselves as outdoorsmen, scientists, environmental interpreters, naturalists, recreation managers and resource protectors. While many have varied academic and employment backgrounds, a majority of the rangers are trained in the physical or natural sciences. Seasonal rangers are frequently school teachers and college students who see the job as a means to enjoy the outdoors, further their careers, and supplement their income.

In short, while some of the rangers would certainly make excellent law enforcement officers, the vast majority have neither the background, inclination, or aptitude to perform the unique functions of a law enforcement officer.

The specific attributes deemed desirable in an officer with full law enforcement powers--aside from the obvious ones of physical ability, specialized training, honesty and dedication, include the following:

- Ability to react instantly after long periods of monotony
- Ability to exhibit initiative, to use judgment and imagination in problem solving, in other words, to exhibit "street sense";
- Ability to demonstrate mature judgment;
- Ability to communicate orally and in writing;

- Ability to act effectively in extremely divergent intrapersonal situations, in other words, the ability to deal with people ranging from criminal to non-criminal;
- Ability to endure physical and verbal abuse;
- Ability to exhibit a professional and self confident manner;
- Ability to skillfully question participants of, as well as witnesses to, a crime or incident;
- Ability to take charge of situations, particularly emergency situations, such as a crime or accident;
- Ability to maintain a balanced perspective even though constantly exposed to the worst in human behavior;
- Ability to exhibit courage;
- Ability to work under loose supervision;
- Ability to tolerate stress in its many forms.

These are the minimum qualifications for the patrol officer position based on a detailed study of field performance.<sup>4</sup> It is clear that only select individuals currently in the Corps ranger program will be able to meet such standards.

However, the Corps rangers play an important part now, and we expect they will play an even more important role in the future, in the total Corps Visitor Protection Program. Specifically, the ranger will continue to be responsible for the following elements in any type of visitor protection program:

- Reduction of littering and pollution of natural resources through enforcement and public education.
- Recreation and "people" management.
- Protection of wildlife.
- Deterrent to trespass, theft, or destruction of government property and project resources.
- Emergency services (non-crime related).

- Encroachment enforcement.
- Prevention of man-caused fires.
- Enforcement and prevention of minor traffic offenses (e.g. parking).
- Law enforcement and visitor protection problem identification and planning for improvement.
- Coordination with law enforcement resources.
- Public information and education.

In short the ranger is an integral part of visitor protection and should receive increased priority in the overall Corps recreation program.

It is essential before discussing the sub-alternatives, to describe the role of the Provost Marshal in the Corps of Engineers. The Engineer Provost Marshal's Office was established in 1952 and a provost marshal was placed in each of the Division Offices of the Corps of Engineers. The provost marshal's responsibilities include:

- Advises the Commander concerning law enforcement matters;
- Formulates and maintains an effective crime prevention program;
- Exercises staff supervision over the Corps ranger training program;
- Maintains records of offenses at the Corps projects.

It is apparent from this partial list of the provost marshal's responsibilities that he is charged with the supervision of any law enforcement program in the Corps of Engineers. The policies of OCE in terms of to what degree the provost marshal performs his duties are not clear, however, it was obvious from all the site visits, that the provost marshals currently maintain a very low profile in the visitor protection program at the lakes.

The organizational structure clearly suggests that if a more aggressive law enforcement function is performed by the Corps of Engineers,

that this function should be supervised by the provost marshals. This may create an obvious management problem if the ranger is answerable to the lake manager while supervised by the provost marshal. If this were the case, a great deal of coordination would be needed for the program to function effectively, if at all.

With this discussion as background, each of the three sub-alternatives will be evaluated in terms of their advantages and disadvantages.

Sub-Alternative IV-A: Grant Full Police Powers to Enforce Federal and State Laws to Corps of Engineers Rangers

Discussion

Under this sub-alternative, existing ranger personnel at Corps of Engineers lakes would be vested with full police power to enforce all relevant state and federal laws at the project. This could be done one of three ways. The first way would be through a state by state law change that would define Corps rangers as State Peace Officers. The second way would be to give the rangers the authority of Deputy U.S. Marshal's. This approach would, of course, require the approval of the specific U.S. Marshal in whose jurisdiction the lake is located. The third way would be to have congress pass a statute to allow the Secretary of the Army to expand the current park regulations to cover serious misdemeanors and felonies.

Cost

Granting full police authority to the permanent rangers would eliminate the requirement of obtaining additional peace officers at the lakes. The permanent rangers would be providing a dual purpose. In this case, if the minimum number of rangers needed to fulfill the standards for effective visitor protection were added, this would exceed the required number of hours of service needed by peace officers at the lakes. Thus, the addition of 278 permanent rangers would raise the total number of rangers to 598 which would now act in a dual role as peace officers.

The cost of this alternative has been assessed from information from the National Park Service, U.S. Forest Service, and other recreation agencies throughout the country. The new costs for this alternative are as follows:

|                                                                        |   |             |
|------------------------------------------------------------------------|---|-------------|
| Additional Personnel GS-5 level and<br>30% benefits @ \$10,920 per man | = | \$3,035,760 |
|------------------------------------------------------------------------|---|-------------|

|                                                                 |   |           |
|-----------------------------------------------------------------|---|-----------|
| *400 hours of basic law enforcement<br>training @ 2,500 per man | = | \$695,000 |
|-----------------------------------------------------------------|---|-----------|

**\*\*Additional Equipment**

|                                                                                   |   |          |
|-----------------------------------------------------------------------------------|---|----------|
| a. handguns, handcuffs, mace,<br>nightsticks, ammunition, etc.<br>@ \$200 per man | = | \$55,600 |
|-----------------------------------------------------------------------------------|---|----------|

|                                                                               |   |           |
|-------------------------------------------------------------------------------|---|-----------|
| b. 190 full-equipped vehicles<br>(one per lake) with radios<br>@ \$4,500 each | = | \$855,000 |
|-------------------------------------------------------------------------------|---|-----------|

|                                                   |   |                  |
|---------------------------------------------------|---|------------------|
| Additional Expenses 2,511,183 miles<br>@ 12¢/mile | = | <u>\$301,342</u> |
|---------------------------------------------------|---|------------------|

|       |  |             |
|-------|--|-------------|
| Total |  | \$5,797,702 |
|-------|--|-------------|

\*Training costs are based on a tuition equivalent. These costs will increase if per diem is necessary.

\*\*Anticipated changes in equipment (e.g. use of scooters, horses, etc.) cannot be budgeted.

It may be anticipated that law enforcement indemnity insurance will increase the cost of this alternative so that the total cost exceeds \$6.5 million. It should be emphasized that these costs represent estimates for preliminary consideration. The advantages and disadvantages of this approach are discussed below.

Advantages of Sub-Alternative IV-A.

- Uniformity of service and enforcement.
- Uniformity of training.
- Comparative cost to subsidy alternatives.
- Half of the personnel are already on the job.

- Broader use of existing manpower and flexibility of functional activities.
- Autonomous selection of officers.
- Many of the new peace officers will be familiar with Corps recreation-resource management policy.
- Many will already be dedicated to enhancement of project recreation and resource utilization.
- Many will already be familiar with environmental and resource protection laws related to Corps lakes.
- Officers will be responsive to the needs of Corps project managers.
- Some will have already received a minimal level of training.
- Many of the officers will be familiar with project area and have contacts with local law enforcement agencies.

Disadvantages of Sub-Alternative IV-A

- Existing personnel may lack basic qualifications and aptitude for the performance of law enforcement functions.
- New recruits may clash with recreation objectives.
- Potential loss of the desired "good guy" image of the ranger.
- Degradation of recreation-resource management functions at the projects currently performed by Rangers.
- Creation of a new job category on the Federal level.
- Reorientation of recruitment policies.
- Transportation of prisoners may escalate costs and result in increased law enforcement duties.
- Uncertainty of obtaining statutory approval of this option by the Federal government or State agencies.
- Law enforcement personnel reporting to civilian park manager who may lack understanding of the law enforcement function.
- Inadequate law enforcement support functions at the project.
- May conflict with role of the Provost Marshal.

- Will require creation of law enforcement infrastructure within the Corps to assure that integrity is maintained.
- Places Corps employees in dangerous positions; opens possibility of litigation for brutality, shootings, etc.
- Definite possibility that recruiting may tend more towards law enforcement type employees if crime and vandalism increases.
- Increased workload for the Federal court system.
- If locally deputized, would have to rely on state and local courts for representation of cases.
- Definite possibility of internal friction and morale problems at Corps projects between new enforcement personnel and current employees due to opposing value orientations.
- Possible loss of existing public relations orientation sought by Corps management and concomittant loss of public support.
- Overtime required to compensate enforcement personnel for court appearance.

Sub-Alternative IV-B: Increase the Utilization of Existing Corps of Engineers Ranger's Authority.

Discussion

This sub-alternative is designed to provide ranger personnel with increased enforcement power. Specifically, it envisions that ranger personnel have the means to deal with minor but frequently occurring offenses such as disturbing the peace. Grant of such authority could be handled administratively. The Secretary of the Army has the power by law to implement this sub-alternative without resorting to legislation.

It should be made clear that this sub-alternative does not suggest that rangers be given any more authority than their current citation power. The suggestion is to increase the coverage and activity of the current citation program. Citation coverage should be broadened to gain complete coverage over the protection of natural resources (this point is discussed in more detail in Chapter 18) and to have impact on minor order-maintenance activities.



An important point, however, is that rangers do not have the power of arrest under this sub-alternative, thus access to sworn law enforcement officers is still necessary. But, as an alternative, it is suggested that rangers utilize their authority to expel ungovernable individuals from the project premises. With the assistance of sworn law enforcement and reliance on imposing trespassing violations, this use of enforcement authority would be very effective in eliminating troublesome situations without reliance on introducing the subject into the criminal justice system. It should be noted that use of this measure should only be attempted after clear policy has been defined and regulated by OCE in terms of the discretionary employment of this measure.

Again, however, if the ranger is being asked to enforce more stringent order-maintenance laws, he is being asked to place his personal safety on the line. It would be irresponsible on the part of the Corps to do this without giving him the means to protect himself. In short, if there is not access to sworn law enforcement the ranger should be armed to successfully implement this sub-alternative. However, in this quasi-law enforcement status, it would be even more irresponsible to provide the ranger with a gun. Another alternative would be to provide him with less-lethal weapons (e.g. mace, ultrasound devices, club, jack, etc.). These less-lethal weapons are not particularly reliable in experienced hands, much less when used by inexperienced individuals. Additionally, the term "less-lethal" is used deliberately. There is always a risk of death or serious injury when any weapon is employed. Thus, successful implementation of this sub-alternative appears to be dependent on the access to sound, full-powered law enforcement.

#### Costs

Costs for implementing this sub-alternative would be roughly one-third less than granting full police power. The difference lies in less required training and equipment. The manpower requirement is still the same for additional rangers.

The costs are estimated as follows:

|                                                                        |   |             |
|------------------------------------------------------------------------|---|-------------|
| Additional Personnel GS-5 level<br>and 30% benefits @ \$10,920 per man | = | \$3,036,760 |
| 50 hours of basic training<br>@ \$313 per man                          | = | \$ 87,014   |
| Additional Equipment 80<br>radio-equipped vehicles<br>@ \$4,600 each   | = | \$ 320,000  |
| Additional Expenses<br>1,255,592 miles @ 12¢/mile                      | = | \$ 150,671  |
| Total                                                                  |   | \$3,593,445 |

With the addition of insurance costs, implementation of this alternative will exceed \$4 million.

Advantages of Sub-Alternative IV-B:

- Can be accomplished administratively.
- Provides the Corps with the capability to respond to one of the most frequent type of law enforcement problems at its lakes.
- Can be accomplished by individuals already employed by the Corps.
- Similar advantages to those discussed for sub-alternative IV-A.
- Does not expose Corps rangers to serious felony cases.
- Costs to implement are not overwhelming.
- Control rests with the Corps, situations can be handled utilizing discretion to accommodate Corps policy and goals.
- Assures recreation users that Corps can protect them from annoying experiences that detract from enjoyment of recreation.

Disadvantages of Sub-Alternative IV-B.

- Corps must still rely on outside agencies for serious case processing.
- Requires an extension of administrative power.

- Ranger still in a dual and often conflicting role of "good guy" and law enforcement officer.
- Puts the ranger in a quasi-law enforcement position without sufficient "clout."
- Places rangers in dangerous situations.
- Similar disadvantages as those associated with sub-alternative IV-A.
- Cases must be presented in state and local courts with attendant overtime costs.
- Impractical to give this power to temporary employees who may have to return to court once employment is terminated.
- Does not provide sufficient visitor protection.

Sub-Alternative IV-C: Create and Staff a Separate Corps of Engineers Police Force to Provide Visitor Protection and Law Enforcement Services at Corps Lakes.

#### Discussion

Implementation of this sub-alternative will require congressional approval. The most feasible approach is to use the Aqueduct Police Force as a base and expand its scope of authority to extend to all Corps projects. This sub-alternative would be implemented by the staffing plan for sworn peace officers presented in a previous section.

#### Cost

This is obviously the most costly alternative. If this latter approach is taken, a minimum force of 584 sworn officers will be needed. Together with required support personnel, equipment and insurance, the implementation of this alternative would exceed \$11 million. Some costs could be saved however, if the Consolidated Federal Law Enforcement Training Center was utilized for training. The applicability of the training to the Corps problems is questionable. The cost breakdown would be as follows:

|                                                                |                      |
|----------------------------------------------------------------|----------------------|
| Additional Personnel GS-5 level and<br>30% benefits @ \$10,920 | = \$6,377,280        |
| 400 hours of basic law enforcement<br>training @ 2,500 per man | = \$1,460,000        |
| Additional Equipment                                           |                      |
| a. handguns, etc. @ 200 per man                                | = \$ 116,800         |
| b. 190 radio-equipped vehicles<br>@ 4,500 each                 | = \$ 855,000         |
| Additional Expenses                                            |                      |
| 2,511,183 miles @12¢/mile                                      | = \$ 301,342         |
| Administrative Support Costs                                   | = <u>\$1,000,000</u> |
| Total                                                          | \$10,110,422         |

#### Advantages of Sub-Alternative IV-C

- Complete Corps control of policy, procedures, personnel calibre, pay and operational methods.
- Responsive to needs and levels of authority in proposed or existing legislation on a national basis.
- Completely eliminates jurisdictional problems as cases can be presented in U.S. Courts.
- Provides a substantial deterrent to violations at Corps projects.
- Provides uniformity of approach at all Corps projects.
- Provides an excellent supplement to ranger authority as part of an integrated visitor protection program.
- Provides continuity of direction for enforcement personnel.
- Enables Corps to successfully implement recreation-resource policies without conflicting philosophies of law enforcement.
- Improves the existing level of visitor protection more than any other alternative.

#### Disadvantages of Sub-Alternative IV-C

- Extremely costly to implement.
- Questionable whether Congress will grant either adequate legislative authority or funds to implement.

- Creates a new and complex management problem for Corps decision-makers.
- Puts Corps employees in hazardous situations and exposes Corps to liability for officer actions.
- Will require a continual expansion of manpower and funding levels.
- Uncertain whether protection problems will increase or decrease.
- Creates a fragmented approach to the development of a unified federal policy for national visitor protection policy.
- Will inevitably create local-level political problems with sheriffs and police.
- Law enforcement agencies are difficult to control once they are firmly established; possible conflict with basic Corps recreation-resource management role.
- Difficult to design an adequate organizational format for law enforcement services within existing Corps structure.
- Difficult to justify the existence of this specialized force during the off-season.
- Creates management conflict with role of the Provost Marshal.
- Will still need to supplement current ranger force to reach adequate level for ranger responsibilities.

#### Summary

The implementation of sub-alternative IV-A appears to be the soundest approach for the Corps to autonomously control the law enforcement and visitor protection at the lakes. However, it cannot be emphasized enough that law enforcement is a serious endeavor with grave consequences for negligence or misjudgment. It is not the type of profession that one can be molded into if not inclined or predisposed to do such. The role conflict created from forcing someone into an unwanted position is self-defeating. These disadvantages must be given strong consideration before implementing this alternative.

ALTERNATIVE V. A COMBINATION OF ALTERNATIVES III AND IVDiscussion

Simply stated this alternative will extract and combine the most positive features from supplementing law enforcement assistance and increasing Corps visitor protection practices as described in sub-alternative IV-B.

The objective of this alternative is to use state law enforcement agencies for preventive patrol and apprehension of offenders, in addition to increasing the Corps ranger force to meet the levels recommended in Chapter 9. The Corps ranger's role would be to assist in implementing the goals which involve assisting law enforcement and protecting environmental resources and visitors. The use of Title 36 citation activity would be utilized as described in sub-alternative IV-B, better records would be kept, effective deterrence of crime achieved, and a number of other values met.

The basic advantage of this alternative is that rangers would not be law enforcement agents. Their role would encompass recreation-resource management and protection. State law enforcement agencies, either State Police, Highway Patrol or Conservation Agencies, would provide the necessary law enforcement. The Corps would still be responsible both financially and administratively, thus ensuring a complete visitor protection program.

Most of the other recommendations, described in the remaining chapters, such as increased training or improved park design, would be best accomplished under this alternative.

Cost

The cost of implementing this alternative will be presented according to the two plans for manpower improvement described in Chapter 9. The cost of using state agencies will remain constant in both plans.

The objective of plan Y is to maximize the availability of permanent rangers for each working shift. This plan involves the addition of 278 permanent rangers, which will provide a minimum of 4 rangers per A lake and one ranger per B lake (with "double-up" coverage). The cost is detailed below:

| <u>Plan Y</u>                                     |   |                   |
|---------------------------------------------------|---|-------------------|
| State Law Enforcement Subsidy                     | = | \$6,000,000       |
| 278 Additional Corps Rangers<br>@ \$10,920        | = | \$3,035,760       |
| 50 hours Corps training<br>@ \$313 per man        | = | \$ 15,650         |
| Additional Equipment<br>190 vehicles @ \$4,000    | = | \$ 760,000        |
| Additional Expenses<br>1,255,592 miles @ 12¢/mile | = | <u>\$ 150,671</u> |
| Total                                             |   | \$9,962,081       |

This total expense for effective coverage would more than double the Corps current ranger (permanent and temporary) personnel costs.

Plan Z involves a much higher level of coverage during peak usage with well-trained, seasonal rangers. This plan would decrease the ratio of recreation visitors-to-rangers from 240,000 visitor days per ranger to 100,000 visitor days per ranger at the A lakes. The B lakes ratio would drop from over 600,000 per ranger to 150,000 per ranger.

Implementation of plan Z would require the addition of 322 permanent rangers and 644 seasonal rangers. The costs for plan Z are as follows:

Plan Z

|                                            |   |              |
|--------------------------------------------|---|--------------|
| State Law Enforcement Subsidy              | = | \$6,000,000  |
| 322 Additional Permanent Rangers           | = | \$3,516,240  |
| 644 Seasonal Rangers                       | = | \$1,288,000  |
| 50 hours Corps training<br>@ \$313 per man | = | \$ 302,358   |
| Equipment and Expenses the same            | = | \$ 910,671   |
| Total                                      |   | \$12,017,269 |

Plan Z is \$2 million more expensive than plan Y, but the added coverage from trained, supervised, seasonal employees would be well worth the difference.

Advantages of Alternative V

- State agencies generally have total jurisdiction over law violations throughout the state irrespective of county or municipal boundaries. This will allow for a single contractual arrangement with an agency that can perform all law enforcement functions at the lake(s) regardless of the number of jurisdictions which are involved.
- Corps roles and objectives concerning the provision of law enforcement and visitor protection will be clearly defined.
- State level law enforcement agencies are typically the most sophisticated in terms of training, equipment, and support services and are accustomed to the enforcement of laws on a geographic basis.
- State agencies are characteristically the best capable to recruit new personnel which would be required for operations at the one or more Corps lakes in the state.
- Can be accomplished with few administrative problems.
- Concentration of law enforcement services through one centralized agency will allow the Corps to coordinate reporting and recording of crime data at a single level.
- Communications and information exchange with a state level agency will be more efficient than through many individual agencies.



- Law enforcement services will be more uniform throughout the United States where the number of agencies administering law enforcement are reduced.
- Use of a state level agency will be more cost effective in that these agencies will require less extensive start-up expenditures. All, for example, maintain 24-hour dispatch capability and sufficient support personnel to accommodate additional sworn personnel without the level of outlay that would be demanded by a number of local agencies which may require additional equipment or personnel.
- Does not expose the Corps to serious felony cases or the concomitant problems such as prisoner transportation and detention.
- Assures recreation visitors that they will be adequately protected.
- Will best enable the Corps to implement the standards for visitor protection.

#### Disadvantages of Alternative V

- Costly to implement.
- Will require organizational commitment and alterations.
- There is no complete assurance that subsidized personnel will always be utilized exclusively at the Corps lakes.
- Subsidized law enforcement may attempt to direct Corps policy concerning visitor protection.
- Corps must still rely on outside agencies for serious case processing.

#### Summary

The costs to implement this alternative are expensive but the coverage provided would ensure visitor and resource protection. The manpower service rendered from this alternative would be highly adequate. The trade-offs in resource and visitor protection can be realized by comparing this expense to the current expense of crime and vandalism (costs due to losses from theft and damage; and law enforcement rendered) which is estimated at over \$25 million per year. It would be expected that implementation of alternative V (plan Y or Z) would significantly decrease

this \$25 million expense. Even adding the cost of the current Corps manpower expenses for visitor protection to this alternative would still remain approximately 40 percent below the current costs of crime and vandalism.

The primary point to be made is that implementation of this alternative would provide a clear mandate for defining the objectives of the Corps in law enforcement and visitor protection and would provide the best means to attain the standards established in Chapter 8.

SUMMATION OF ALTERNATIVES FOR THE ADMINISTRATION OF VISITOR PROTECTION  
AT CORPS OF ENGINEERS LAKES

In order to present a clearer picture of the various courses of action for decision-makers, this final section will summarize the alternatives presented for administering visitor protection at Corps lakes. Table 11-3 displays the myriad of alternatives and their associated costs and levels of service provided if implemented. This table should provide a useful cross-reference to assess the immediate feasibility of the alternatives.

TABLE II - 3  
ALTERNATIVES FOR THE ADMINISTRATION OF  
VISITOR PROTECTION AT CORPS OF ENGINEER LAKES

| Alternatives<br>for<br>Action | Expenditures for<br>Visitor Protection.<br>Corps | State/Local                   | Level of Service<br>Provided at<br>Corps Lakes |
|-------------------------------|--------------------------------------------------|-------------------------------|------------------------------------------------|
| Current Expenses              | \$3 - \$4<br>Million                             | \$7 - \$10<br>Million         | Not Sufficient*                                |
| I                             | No additional<br>expenses                        | No additional<br>expenses     | Not Sufficient                                 |
| II-A                          | No additional<br>expenses                        | Possible added<br>costs       | Not Sufficient                                 |
| II-B                          | No additional<br>expenses                        | Reduction in<br>current costs | Not Sufficient                                 |
| II-C                          | Some added<br>expenses                           | Reduction in<br>current cost  | Sufficient**                                   |
| III-A                         | \$4 Million<br>additional                        | Reduction in<br>current cost  | Sufficient                                     |
| III-B                         | \$5.6 - \$6 Million<br>additional                | Reduction in<br>current cost  | Sufficient                                     |
| III-C                         | \$2.7 Million<br>additional                      | No additional<br>expenses     | Not Sufficient                                 |
| III-D                         | \$8 - \$9 Million<br>additional                  | Reduction in<br>current cost  | Sufficient                                     |
| IV-A                          | \$6.5 Million<br>additional                      | Reduction in<br>current cost  | Sufficient                                     |
| IV-B                          | \$4 Million<br>additional                        | No Additional<br>expenses     | Sufficient                                     |
| IV-C                          | \$11 Million<br>additional                       | Reduction in<br>current cost  | Sufficient                                     |
| V                             | \$10 - \$12 Million<br>additional                | Reduction in<br>current cost  | Sufficient                                     |

(Source: PRC/PMS)

\*Thus, the overall cost of crime and vandalism, which is in excess of \$12-\$17 million, will not be abated by this action.

\*\*Should have enough impact and deterrent effect to reduce the occurrence and cost of crime and vandalism.

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## Chapter 12

### IMPACT OF ALTERNATIVES ON THE COURT SYSTEMS

#### A. Introduction

The alternative policies presented for visitor protection and law enforcement will affect not only the resources, policies, and practices within the Corps but also the entire criminal justice community including the federal, state and local court systems. The various alternatives in effect may result in increased utilization of U.S. magistrates or increased use of local courts.

While security in the parks is a major factor in public confidence and support, the actual incidence of serious crimes as defined for the UCR 'Index' is low, except for reported larceny, and arrests for this offense are rare. The great bulk of cases generated at Corps projects will, therefore, continue to be classified as misdemeanors or minor and petty offenses and will impact state and local courts with jurisdiction over misdemeanors, or the system of U.S. magistrates. It is appropriate to consider the workload and cost impact of Corps enforcement on these judicial agencies, and other factors in the Corps relationship with the judiciary.

#### B. The Federal Court System

Since the passage of the Federal Magistrates' Act of 1968, all federal judicial districts use full and part-time magistrates to assist the judges in a variety of tasks. Most full-time magistrates are appointed to metropolitan district courts where they assist judges in a variety of legal tasks including warrants, arraignments and pre-trial

hearings. In smaller cities and rural areas, however, part-time magistrates are used primarily to dispose of misdemeanors and petty offenses. Law enforcement at Corps of Engineers projects typically impacts on the part-time magistrates, and it is among them that increased federal judicial costs will be incurred.

While the U.S. magistrate system is extensive, it represents only a small portion of federal judiciary outlays and offers a substantial savings in the overall cost of case handling. The maximum salary of a full-time magistrate is \$36,000 as against a district judge's salary of \$40,000 to \$50,000, and the cost to the Government of supporting a full-time magistrate is about half the cost of the salary, staff, and offices for a judge. For part-time magistrates the cost is even less. The maximum salary for a part-time magistrate is \$18,000, but some salaries are as low as \$300 and the average compensation including expenses is approximately \$4,000.<sup>1</sup> Salary and expenses are provided in approximate proportion to caseload. Part-time magistrates hold federal court as required, but, at a minimum, court is held once a month.

It is reasonable to expect that increased citation and arrest activity will impact the system of U.S. magistrates, where federal personnel are used to enforce federal statutes. One possible consequence is an increase in both citations and arrests. This will have an impact on the workload of U.S. magistrates, who dispose of minor offenses, and a lesser impact on the U.S. District Courts in the case of felonies and other serious offenses. A second possibility is no increase in federal arrests, reflecting a reliance on citations as the primary enforcement tool. In this case the workload of federal magistrates would be increased slightly, but the U.S. District Courts would not be affected.

Cost and workload impact on U.S. magistrates should be considered against several factors. First, the use of collateral forfeiture, which is permitted in most, though not all districts, serves to absorb a large portion of potential judicial workload due to increased enforcement

activity. Secondly, the magistrates' workload in rural areas is based on all federal activity, including park and forest services and other defense services. Hunting, fishing and camping violations accounted for only 6.5 percent of misdemeanors and petty violations handled by all magistrates in 1973;<sup>2</sup> the Corps share of all minor and petty offenses handled by part-time magistrates in 1973 was 5.2 percent.<sup>3</sup>

Consideration must be made as to whether or not the amount of increased court workload would justify and require the appointment of a full-time magistrate and also, whether the caseload of felonies and other serious offenses generated would be beyond the magistrate's jurisdiction and significantly impact the district court.

In order to approach the full-time requirement, simultaneous Corps and other actual court caseloads for the average part-time magistrate would have to be significantly increased. There is no justification for such a forecast in the near future; even a substantial increase in Corp-generated workload would not exceed the statutory capacity of a significant number of magistrates.

Impact of felony arrests on the federal district courts is and will be minor as a total proportion of criminal caseload. The courts already handle those felonies where arrest is made by federal officers. However, the number of felony arrests made by federal, state and local officers combined in Corps areas is minimal, rarely approaching 10 percent of all citation activity. At the level in 1973, Corps related felonies would constitute less than two tenths of one percent of criminal proceedings in U.S. district courts.<sup>4</sup>

The impact of expanded Corps enforcement on the part-time magistrates who serve Corps areas must be considered in the light of the Corps present share of the overall magistrate workload, as indicated by the figures below:



| Caseload Type                                                                   | Year   |        |
|---------------------------------------------------------------------------------|--------|--------|
|                                                                                 | 1972   | 1973   |
| Total minor and petty offenses disposed by part-time U.S. magistrates           | 35,098 | 40,582 |
| Total citizens referred to part-time U.S. magistrates by the Corps of Engineers | 429    | 2,108  |
| Percent of Corps contribution to total                                          | 1.2    | 5.2    |

It should be noted, however, that both the U.S. magistrate system and Corps citation program are relatively new; 1972 was the first full year of operation for the federal magistrates and the Corps citation program was fully implemented in February 1972. Growth figures for 1972 to 1973, therefore, represent implementation more than they reflect a rising level of violations. The Administrative Office of U.S. Courts predicts that the growth in matters handled by all magistrates (less than 20 percent in 1973) will level off. A 10-15 percent growth calculation has been used for the 1975 budget request.

Actual increases in Corps generated caseload depends on policy, manpower and visitor population. Even a substantial increase in citation activity at Corps lakes would still represent only a minor portion of part-time U.S. magistrates caseload.

#### C. State and Local Courts

A policy of visitor protection through enforcement of state and local law, rather than federal statutes, will impact state and local court systems as law enforcement activity increases significantly. The local area misdemeanor and felony courts already receive and dispose of cases from Corps property brought by state and local police, sheriffs, park rangers, conservation authorities, and a variety of other agencies with some enforcement authority around the lakes.

Most cases involve misdemeanors or minor offenses and are handled by courts of limited or special jurisdiction known by a variety of titles including municipal, county or magistrates court. More specialized courts include traffic and juvenile court. Traffic cases account for approximately half of the caseload in all lower courts throughout the country.<sup>5</sup> Some advantages of processing cases through local courts include: (1) proximity to site; (2) more frequent convening of court; (3) lower overall costs than federal counterparts; and 4) frequently specialized juvenile courts with better facilities and experience with local juveniles than distant federal courts.

The role of local courts is limited by the fact that resource protection, a major responsibility of the Corps as reflected in Title 36, is not uniformly provided for in different state codes. The Corps, as a result, has typically provided its own resource protection enforcement. The bulk of offenses reported by federal personnel involve federal Title 36 resource protection violations. The federal law and federal courts will, therefore, retain a significant role at Corps lakes regardless of law enforcement policy. The local courts may have a significant complementary role in traffic and other misdemeanors and felony offenses, but will not bear the impact of all enforcement.

Operating costs and offsetting revenues vary too much among the states for a standard estimate of cost impact to be meaningful for any one locality; however, salaries and expenses for state courts are on the average 69 percent of federal counterparts.<sup>6</sup> Local and part-time judges and magistrates receive lower compensation, but federal part-time magistrates also receive much less in salary and expenses than do district courts staffs. It is reasonable to expect then that cost impact of increased enforcement will be comparable between local courts and U.S. magistrates for misdemeanors and petty offenses. For felonies and possibly juvenile cases, however, cost impact would be an average 30 percent below U.S. District Court levels.

D. Corps Coordination with Federal Courts

More significant than the budgetary impact of Corps enforcement policy on the courts is the continuing cooperation which the Corps requires from each judicial district in order to make its enforcement credible. Due to the independence enjoyed by federal judges and particularly by the chief judge of each district, there are significant policy differences between judicial districts and sometimes between courts within a district.

Additionally, with the decentralized operations of both the Corps and the federal judiciary, these differences may not be apparent to the administrators. For example, in one district the chief judge is reported to disregard citations issued by the Corps. In another district immediately adjacent, the senior judge leans in the opposite direction by refusing to permit collateral forfeiture. In effect a defendant cited for the most minor offense in this district must travel up to 50 miles to appear before a federal magistrate, and farther if the defendant is from outside the state.

Another less drastic contrast which affects the orderly management of citation enforcement is the lack of uniformity in collateral or fine schedules between judicial districts. In some cases the district engineer assisted by district counsel has obtained agreement on a uniform schedule among the judicial districts in his project areas; however, there is currently no reason why the collateral fees could not be uniform nationwide. Revenue obtained should not be a significant factor, since fines and forfeited collateral are deposited into a general fund of the U.S. Treasury, and are not applicable to local expenses.

The Engineer Provost Marshal currently is represented on a liaison committee for the judiciary. The Corps should use this committee and other appropriate channels to represent its needs outlined above and seek further cooperation with the judiciary. Maximum cooperation, consistent with the legal independence of the judiciary, is critical to the

effectiveness of enforcement at Corps projects, whatever the manpower or policy applied.

Another consideration in Corps relations with the judiciary is the handling of juveniles in cases where citations would normally be issued. Since 1972, the Corps-wide policy (DAEN-ZX letter of 8 August 1972), is that for violations of Title 36, Chapter III, of the Code of Federal Regulations, a juvenile shall not be issued a citation to appear before the U.S. magistrate. Instead, information noted, using the DD Form 1805, will be passed directly to the U.S. Attorney for action before the U.S. District Court. Alternately, a complaint may be sworn before a federal magistrate who will in turn commit the matter to the District Court.

In a situation where citations have served as a convenient enforcement device especially for remote and thinly staffed Corps projects, the ruling poses problems, primarily in placing more responsibility on the Corps for communications and defendant tracking, with frequent time and travel involved in giving testimony.

The most effective method for handling juveniles, in many cases, should be through the local courts, as their machinery is better able to process and respond to these cases.

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1. Administrative Office of U.S. Courts, Division of Magistrates.
2. Administrative Office of U.S. Courts, Annual Report, 1973.
3. Engineer Provost Marshal, Evaluation of Corps Citation Program.
4. U.S. Courts, Annual Report, op. cite.
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6. National Advisory Commission on Criminal Justice Standards and Goals, Task Force on Courts, 1973.

## Chapter 13

### RECORDS MANAGEMENT

#### A. Introduction

The importance of usable feedback information cannot be overstated. Throughout the chain of responsibility, from project to OCE to the Congress, commitment must be sustained or modified by results. In the area of law enforcement and visitor protection, this is particularly difficult because direct measures of success are elusive. However, a comprehensive picture of incidents and enforcement activity in relation to visitation and enforcement manpower is a valuable tool in evaluating resource utilization.

The system of manpower and resource allocation with respect to law enforcement requirements necessitates accurate and timely data on crime and incidents at Corps lakes. Yet, as other sections of this report point out, this data is generally unavailable on all levels of the Corps. An unknown amount of crime is not being reported to Corps project offices by either the public or reciprocally through local law enforcement agencies. As a result, manpower and resource allocations are below sufficient levels, and planning for resource management is being conducted without an accurate overall view of visitor protection requirements.

Basically, the records management system for the law enforcement function should serve several primary goals, as follows:

- Provide a timely flow of useful management information particularly designed to aid in evaluating resource allocation for visitor protection;

- Provide the most efficient and least cumbersome procedure for collection, transfer, and analysis of information at project, district, division and OCE levels;
- Balance the need for current, in-depth operational information and manageable historical record keeping in a single system.

B. The Present Records System

The Corps has two primary channels of information for records related to visitor protection, between project and OCE management levels. These are the incident reporting system of the Provost Marshal and the Recreation Resource Management System (RRMS), an annual data collection system managed by the OCE Recreation branch.

Incident Reports

The present system of reporting used by the Provost Marshal's office is centered around the submission of the Incident Report ENG Form 4337. The current form is adequate in reporting the basic elements of an incident or violation, which include:

- Location in place and time;
- Elements of the incident and its impact;
- Complete audit trail from source.

The original form is forwarded from the site office through the district security office and division Provost Marshal office where it is assigned first a district sequence number and then a division sequence number. Thus tagged and initialed, the form is forwarded to the OCE Provost Marshal, arriving within 7 to 21 days of the incident. In the event of serious incidents, including fatalities, information is telegraphed to OCE. Key information from the Form 4337 is coded for machine processing and printouts are produced quarterly and distributed to division offices.

Some division level offices use their local data processing capability to produce their own offense/incident summaries, also on a

quarterly or annual basis. While formats vary slightly, both OCE and division level reports are keyed to three primary elements, the last two of which are coded from established tables. These elements include:

- Date and time;
- Location;
- Type of Incident/offense.

The incident/offense codes are adapted from a 5-digit series of military offense codes, with additions in order to clearly represent the kinds of offenses encountered in recreation resource facilities. The codes serve to represent statutory offenses and some documentation of accidents and safety-related incidents.

#### Recreation Resource Management System

The Recreation Resource Management System (RRMS) is a computer-supported system which collects, analyses and distributes annual recreation information for completed Corps projects with an annual recreation attendance of over 5000 recreation days. An analysis of recreation activity in each calendar year is produced as a set of reports, D-1 through D-20, which cover most aspects of recreation management. The D-12 report provides a summary of law enforcement detailing for each project the rangers with citation authority, warnings and citations issued, and law enforcement problems. Law enforcement activity may be compared with other measures of recreation involvement including attendance, covered in D-1 through D-6, and operations and maintenance expenditure, reported in D-15 and D-16.

At this time, there is little joint use of reports generated by the OCE Provost Marshal or by RRMS. The RRMS D-12 report is provided to the OCE Provost Marshal for information; however, the subtotals for citations and warnings in the D-12 differ from those in the Provost Marshal's own Citation Program Report since the RRMS omits projects with less than 5000 annual recreation days.



Those responsible for overall monitoring of visitor protection should have information at one time and place which represents both the resources allocated and the best indicators of the problem level. With this in mind, the following information should be available:

- Number of law officers (hours worked by sworn officers in all agencies);
- Accurate level of criminal incidents;
- Number of rangers issuing citations and warnings;
- Number of citations issued;
- Number of warnings issued;
- Overall visitor days;
- Average day use on peak month weekend;
- Average overnight use on peak month weekend;
- Number of incidents, with reference to location and type;
- Time of incident;
- Response time.

The elements above are considered a minimum for comparison, and do not exhaust all relevant data sources. This comparison may be made without change in current organization or procedures. At OCE level the information can be assembled manually using available reports or produced as a single report by a relatively minor programming change. What is most important is that incidents, as well as visitors and manpower available, be considered together.

#### C. Crime Reporting and Recording

While some changes in the form and composition of present records are warranted, the primary requirement is for improved collection activity. As indicated in this and other chapters, the present system of crime and incident recording is inadequate and misleading.

The importance of combining local law enforcement data for each project with citation/incident reports cannot be over-emphasized. The Corps present lack of knowledge with regard to the specifics of law enforcement and visitor protection at Corps projects is in largest measure due to this reporting inadequacy. Future planning and law enforcement management policies for Corps projects must take into account this significant dimension of activity if it is to identify and act responsively to needs on the project and site level.

The problem in the present system is two-fold. First, crime reporting from the lake is excessively difficult. Special call boxes or other devices are not available and public telephones are generally scarce and inconveniently located. In these situations, violations are infrequently reported. To compound this problem there is no control over who or where a visitor will call for service.

Secondly, there is no system for comprehensive crime and incident recording. Recording is performed by Corps personnel as well as by local law enforcement agencies without any reciprocal arrangements for data exchange or quality control.

The results of these situations were discussed in Chapter 6 of this report relating to crime statistics. It was indicated at that point, that not only are Corps crime statistics internally invalid, but they underestimate the actual level of crime.

To rectify this and the primary problem of visitor protection it was recommended in the Chapter on Communications that a more extensive system of telephones be made available at Corps lakes. Each should be clearly marked with the phone number of local authorities, for emergency, and the Corps project office for non-emergency situations. All calls for service, incidents, and crimes reported directly to the Corps office could easily be recorded. In addition, responses by local authorities should, in all cases, be accompanied by a Corps ranger and an incident report completed.

Rangers could easily be summoned via two-way radio by the law enforcement officer once he was dispatched to the lake area. Under this arrangement reporting would be increased; more reported crimes would be recorded; and OCE would receive a clearer picture of crime and vandalism activity.

In addition to the need for increased crime recording, it is necessary that a more uniform system be implemented for the issuance of citations and warnings. While the present report format appears functional, a more precise directive is required with regard to the importance of the citation and written warning in control of visitor conduct. Not only should unlimited discretion of the ranger be qualified, but the importance of the citation program for internal management purposes should be stressed. Project personnel must be made to understand that the non-issuance of a warning or citation, where one should be issued, is not performing a public relations function. In essence, it is performing a disservice to all other lake visitors who are being denied a proportionate share and opportunity to utilize the lakes resources, either natural or otherwise.

Only when there is a certain degree of uniformity of implementation in the citation program will it adequately serve the internal accounting and planning purposes of the Corps and the public interest for which it was designed.

#### D. Management Involvement

The key to productive and accurate reporting is the lake supervisor. The supervisor's involvement is two-fold. To begin with, he must direct and promote an effective program of reporting and recording crime and vandalism. This action depends on Corps policy and the unique personality of the lake supervisor and his rangers. Secondly, the supervisor must assure the quality of reports. In order to effectively perform this function the supervisor should be guided by the following provisions:

- Be aware of the number, type and quality of all reports generated.
- Review all reports, checking for legibility, completeness, and the use of correct forms.
- Initiate follow-up activity where needed.

Therefore, it is essential that the lake supervisor understand all Corps rules and regulations; local, state, and federal statutes; and the information available and procedures to interact with the Corps crime reporting system. Furthermore, it is essential that the results of the review from the supervisor be fed back to the originators of the report (including law enforcement agencies providing service) in a positive manner. This will serve to further upgrade report writing capabilities of field personnel and improve morale.

Chapter 14  
COMMUNICATIONS AT CORPS LAKES

A. Description of the Problem

The provision of services in response to requests may be generally perceived as a three-step process: notification, decision-making, and response. In notification, the citizen establishes contact, either by telephone or in person, with an agency that he feels can handle his problem. The agency contacted will make several decisions regarding this request such as whether it has jurisdiction, the response to be made, and whether to notify other agencies. Once the decision to respond has been made, the agency must contact its field units to dispatch them to the scene and to provide such additional information as may be required.

In the frame of reference of the lake facilities managed by the Corps of Engineers, requests for service are originated by visitors to the lakes using telephones or personal contacts. When the telephone is used, the agency contacted is usually either the ranger headquarters or the most prominent local public safety agency. This choice by the caller is frequently but not always dependent upon the nature and immediacy of his problem.

Requests for service directed to the rangers are only received during normal duty hours. When the rangers are not available, the visitor must seek another authority or wait until the following day. If the rangers are successfully contacted, they will respond to the visitor's requests and, if necessary, will call upon the assistance of local public safety agencies. If a public safety agency is contacted and a

response is required, that response will be made according to the urgency of the problem and the availability of equipment and personnel. If a response by that agency is not required, the call will be referred to the rangers or other agencies as necessary.

Two communications systems are involved in the processes described above: the telephone system and mobile radio systems. In general, the radio systems engineered and operated by the Corps enable them to reliably communicate with rangers in the field and should also be supplemented with radio equipment tuned to one or more local public safety channels. The telephone systems at most of the lake facilities, on the other hand, are not well suited to the needs of visitors who may wish to report an emergency situation, usually because of the limited number of telephones in these areas or their locations which are often far removed from the place where they may be needed, such as campsites and recreation areas.

It appears that the basic problem is to examine various alternatives in improving the notification process and to recommend a reasonable course of action. Since each of the areas managed by the Corps of Engineers has its own unique problems, and although categorization may be made, the alternatives and recommendations contained herein were developed for general cases. Implementation of these recommendations should be made only after their applicability to the particular facility has been reviewed.

#### B. Factors Contributing to the Solution

In accessing rangers or public safety agencies, the goal is to provide the visitors to the Corps facilities with means by which these agencies may be easily contacted. These agencies, in turn, are responsible for rapid response from the moment a call is received, and thus a call should be received in an efficiently operated communications center with a minimum of delay. The telephone is the primary means of contact and direct access to the complaint operator is of prime importance. Also, the implementation of easy-to-remember emergency telephone numbers, pay

telephone dial-tone and area-wide emergency service telephone numbers are important considerations.

#### Calls for Service

The need to establish or maintain a capability to receive calls for service at each of the Corps lake facilities may be established after examining such factors as visitor call rate (number of calls typically generated per thousand visitors), types of calls received (emergency vs. non-emergency), and referrals (requesting the assistance of other agencies). Unfortunately, these data are not available for the majority of the lake facilities, and obtaining such data for a representative sample of the lakes would be both costly and time-consuming. Consequently, "rules-of-thumb" based upon the experiences of public safety agencies throughout the country may be used as a first approximation, but caution is recommended in applying these generalizations to specific cases.

An examination of data obtained on call rates,<sup>1</sup> primarily by law enforcement agencies, reveals that the calls for emergency service vary between 0.5 and 2.5 calls per day per thousand population, with 2 calls per day per thousand being a reasonable average. It has also been observed that the ratio of non-emergency to emergency calls is approximately 2 to 1, resulting in a total call rate of about six calls per day per thousand. Figure 14-A illustrates the expected number of calls per day as a function of population. In the context of the lake facilities, the daily population may be expressed as the sum of the day visitors plus the overnight campers.

For the purposes of designing or evaluating communications systems, the peak rather than average loads are considered, since these are the periods during which the systems may be used to their fullest extent. Estimates of peak conditions are usually taken at the busiest hour of the week, usually observed on a Friday or Saturday evening. Generally, the peak requests for service are about five times the average hourly requests. Figure 14-B presents an estimate of the peak hour requests for service as a function of population.

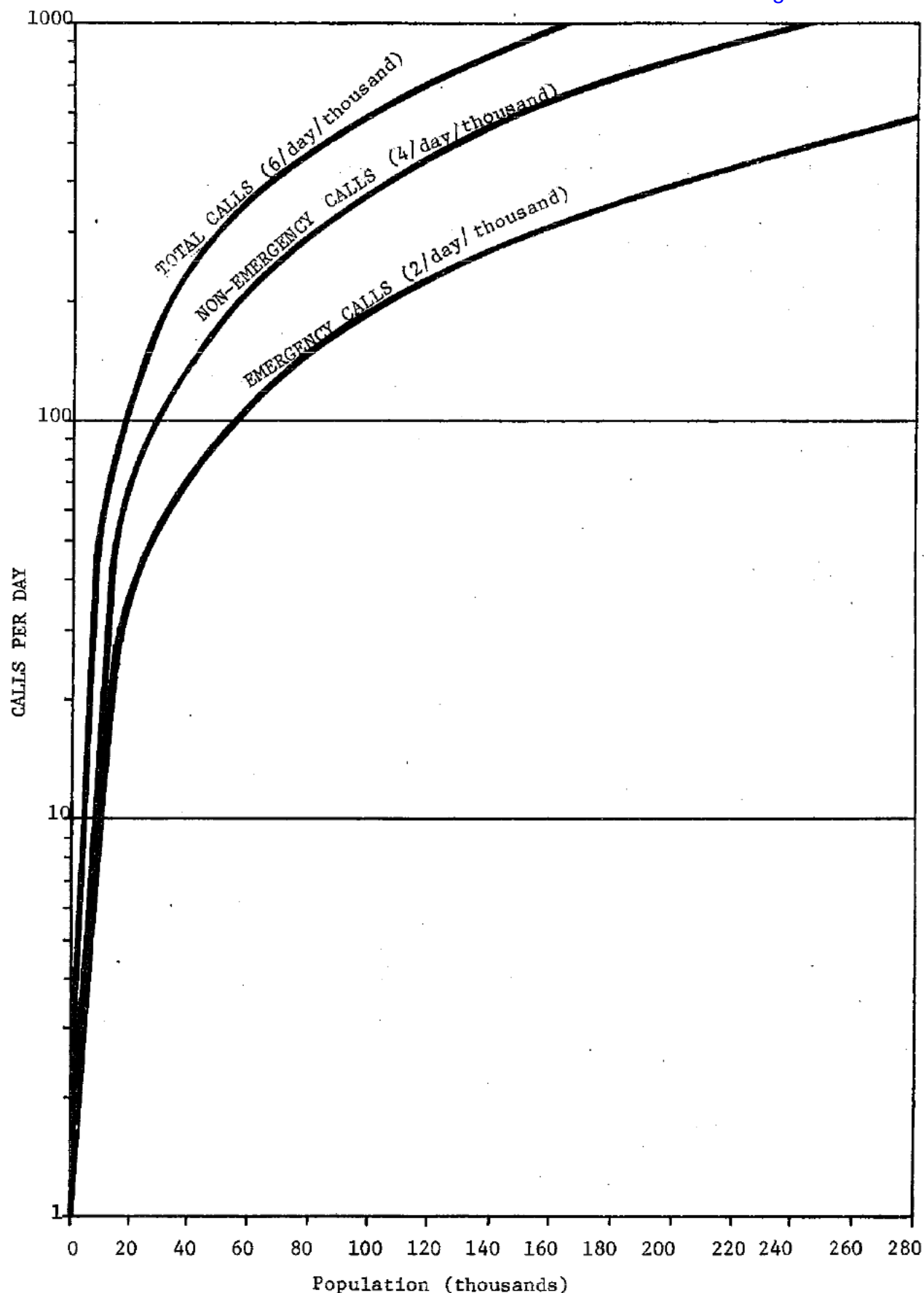


FIGURE 14-A. ESTIMATED DAILY CALLS FOR SERVICE  
AS A FUNCTION OF POPULATION  
(Source: PRC/PMS)



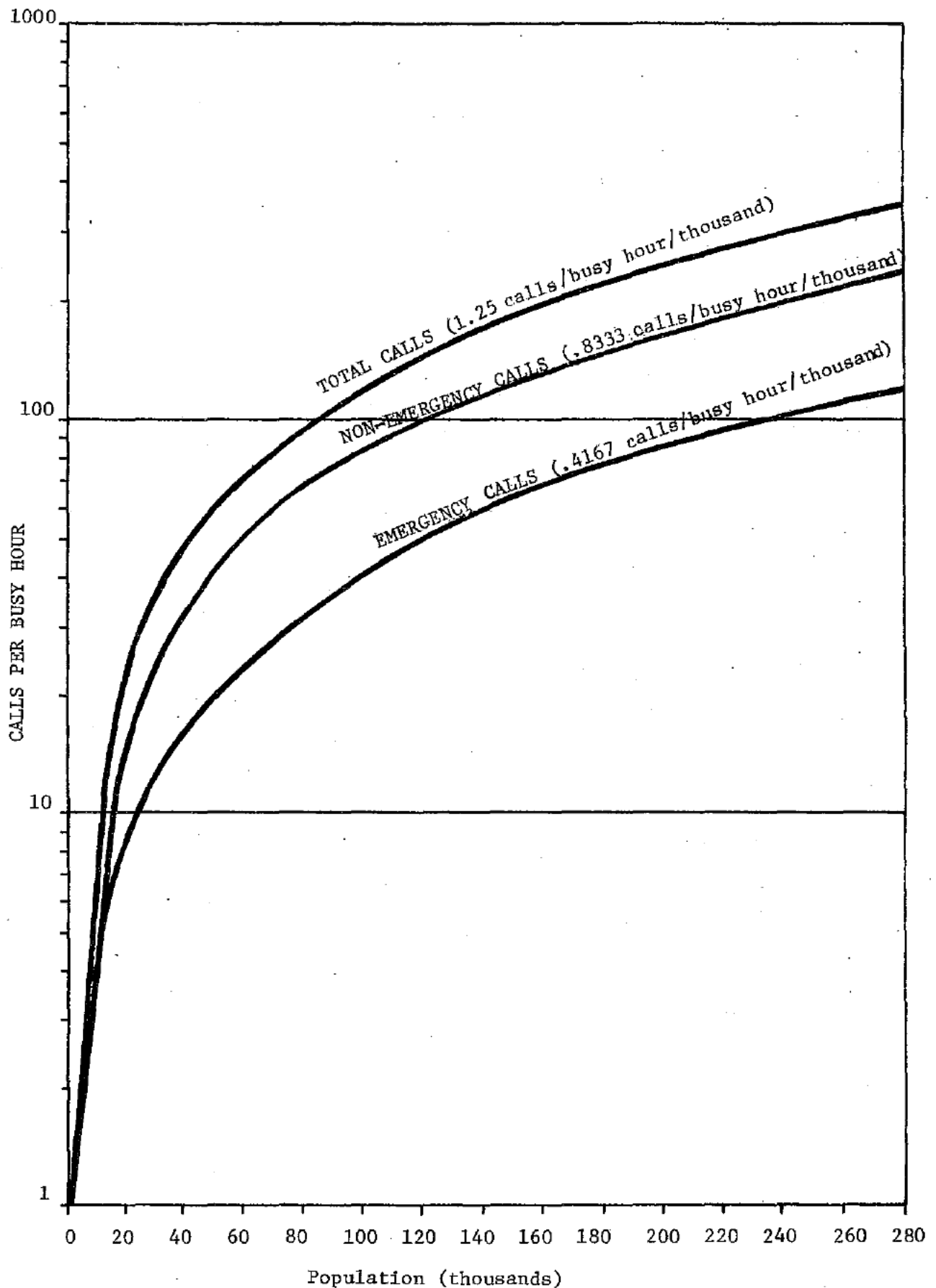


FIGURE 14-B. ESTIMATED BUSY HOUR CALLS FOR SERVICE  
AS A FUNCTION OF POPULATION

(Source: PRC/PMS)

The Telephone System

The objective of analyzing the telephone line requirements is to insure that there is a relatively small chance of getting a busy signal when the emergency number is dialed. In the event that more than one line is required, it is recommended that the lines (or trunks) be members of a set of numbers which ring sequentially (a rotary) so that only one number need be dialed to access the public safety agency, and if it is busy, the next number in the sequence would ring automatically.

The standard of determining the number of trunks needed is through the use of Erlang's lost call formula:

$$P = \frac{a^n/n!}{1 + a + a^2/2! + \dots + a^n/n!}$$

where P = probability of getting a busy signal

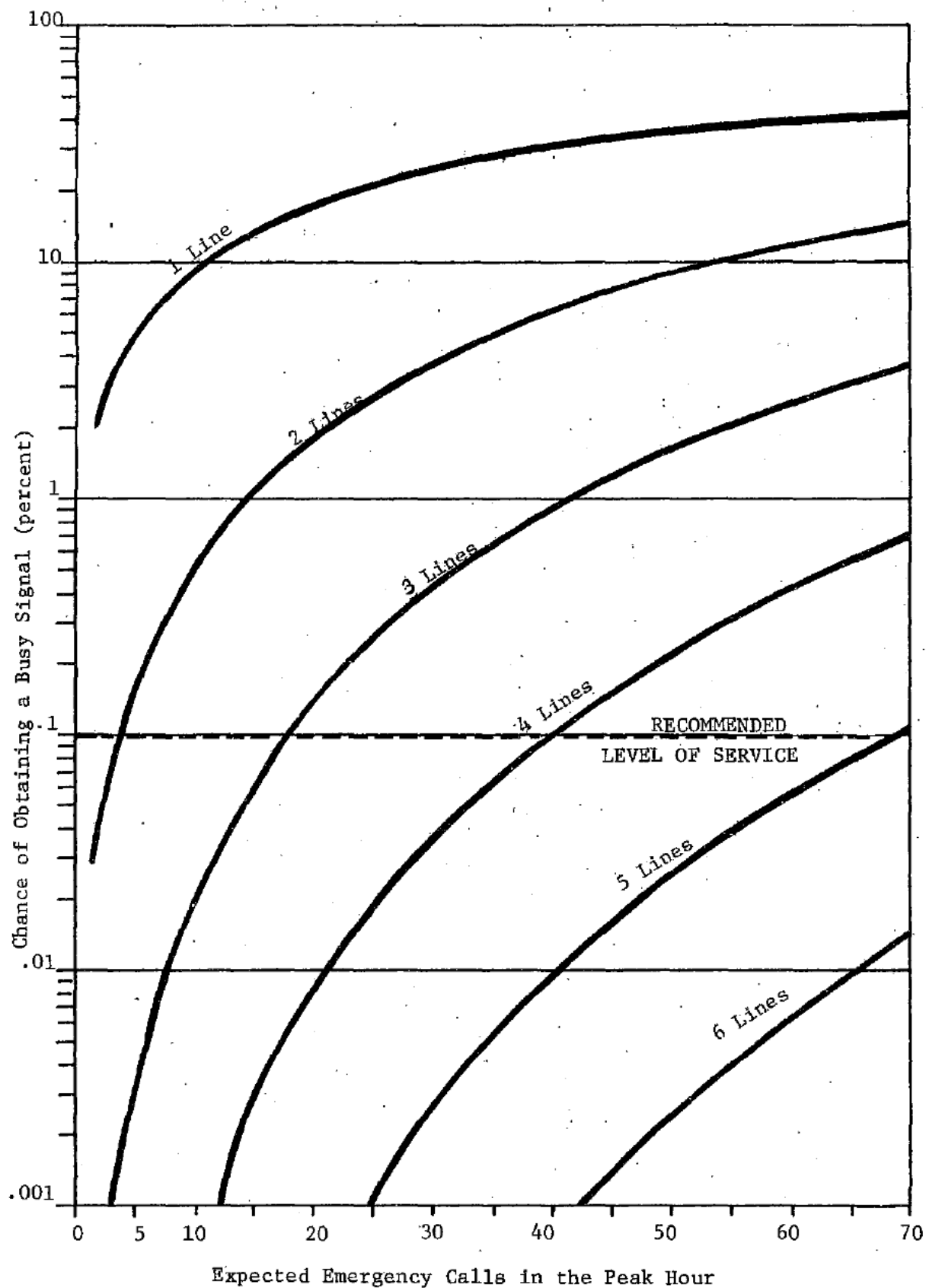
a = c · t

c = number of calls in the peak hour

t = average length of a call (fraction of an hour)

n = number of telephone lines

In general telephone company operations, a one percent chance of obtaining a busy signal is considered acceptable. However, in the case of public safety services, where the safety of life and property are often at stake, there must be a greater number of emergency lines to insure that the chance of a busy line is less than one percent. Typically, the value .1 percent (or a probability of .001) is specified. For non-emergency lines, a one percent chance of a busy signal is acceptable. Figure 14-C shows the number of emergency lines that would be required to satisfy a given level of service for various values of calls per hour. Figure 14-D portrays the same type of information for non-emergency lines. In developing these figures, the average length of an emergency call was assumed to be 40 seconds and for a non-emergency call, 130 seconds, based upon statistics gathered from a number of agencies.



Expected Emergency Calls in the Peak Hour  
 FIGURE 14-C. EMERGENCY TELEPHONE REQUIREMENTS

(Source: PRC/PMS)

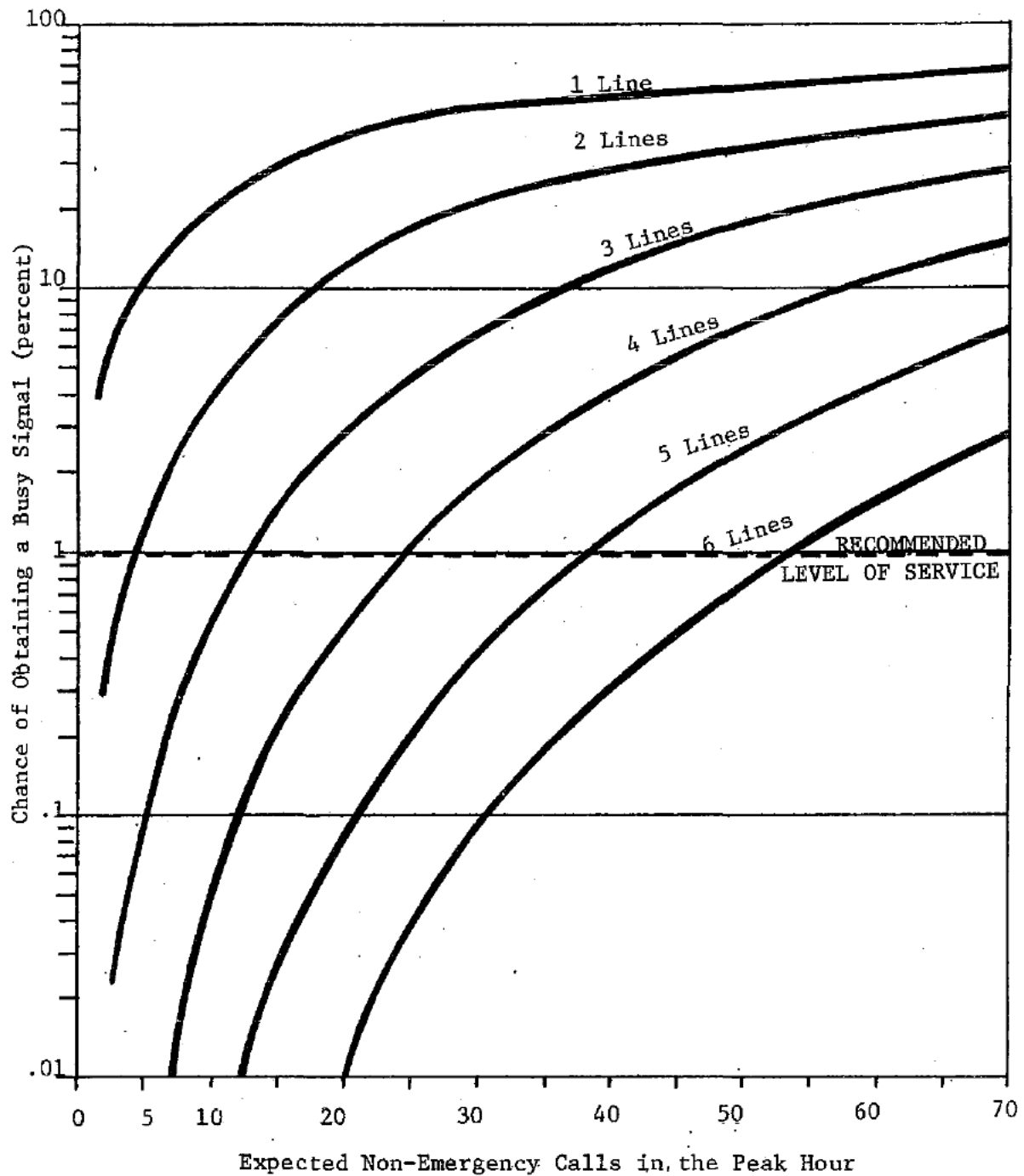


FIGURE 14-D. NON-EMERGENCY TELEPHONE LINE REQUIREMENTS

(Source: PRC/PMS)

Complaint Operator Requirements

The provision of a sufficient number of emergency and non-emergency telephone lines is only half of the input process. The second half is determining the required number of complaint operators needed to service the incoming calls in a timely fashion.

The technique of defining the complaint operator requirements is queuing analysis, which is described in various texts,<sup>2</sup> and is dependent upon the rate at which incoming calls arrive, the average length of a telephone conversation, the probability of having to wait for service, and the average length of time a caller may have to wait. The probability that none of the complaint operators are busy is given by:

$$P_0 = 1 - \left[ \sum_{n=0}^{c-1} \frac{(c\rho)^n}{n!} + \frac{(c\rho)^c}{(1-\rho)c!} \right]$$

where  $c$  = number of complaint operators

$\rho = \frac{\lambda m}{c}$  the complaint operator loading factor

$\lambda$  = number of calls per unit time

$m$  = average conversation time

The probability that all of the complaint operators are busy is expressed as:

$$P(T>0) = \frac{(c\rho)^c}{(1-\rho)c!} P_0$$

where  $T$  = waiting time

Then, if all of the operators are busy, the probability of the caller having to wait time  $t$  is:

$$P(T>t) = P(T>0) \exp \left[ -\frac{ct}{m}(1-\rho) \right]$$

Figure 14-E depicts the number of complaint operators that would be required to answer calls within 30 seconds, for various numbers of calls per hour, with a recommended level of service corresponding to a 5 percent chance of waiting at least 30 seconds.

#### Cost Estimates

Two types of costs are presented here, personnel and equipment, both of which are associated with the notification input process. Since salaries and telephone equipment charges vary from place to place, the figures given here should be considered only as estimates.

For the provision of a 24-hour complaint receiving service, no fewer than four operators will be required for each position as determined by Figure 14-E. These operators would be used one for each 8-hour shift, plus rotation for weekends, sick leave, holidays and vacations. At an average salary of \$7,500 per operator per year, this represents a monthly cost of \$2,500 per operator position.

For the telephone lines required, as determined by Figures 14-C and 14-D, the monthly charge is approximately \$15 per line. In addition, the charge for a call director or similar instrument will be about \$15 per month. Not included in these costs are any charges that may be associated with the installation of additional telephone instruments in the lake areas for the use of visitors.

As an example, consider a lake facility where the typical peak daily population (e.g., Saturday during the July 4th weekend) is approximately 30,000 visitors. From Figure 14-B we estimate that during the busy hour, approximately 36 calls will be received of which 12 are expected to be emergency calls and 24 will be of a non-emergency nature. For the 12 emergency calls, Figure 14-C indicates that more than two lines will be required (three lines) to maintain the 0.1 percent level of service, and for non-emergency calls, Figure 14-D specifies that four lines will be required to maintain a 1 percent level of service for the anticipated 24

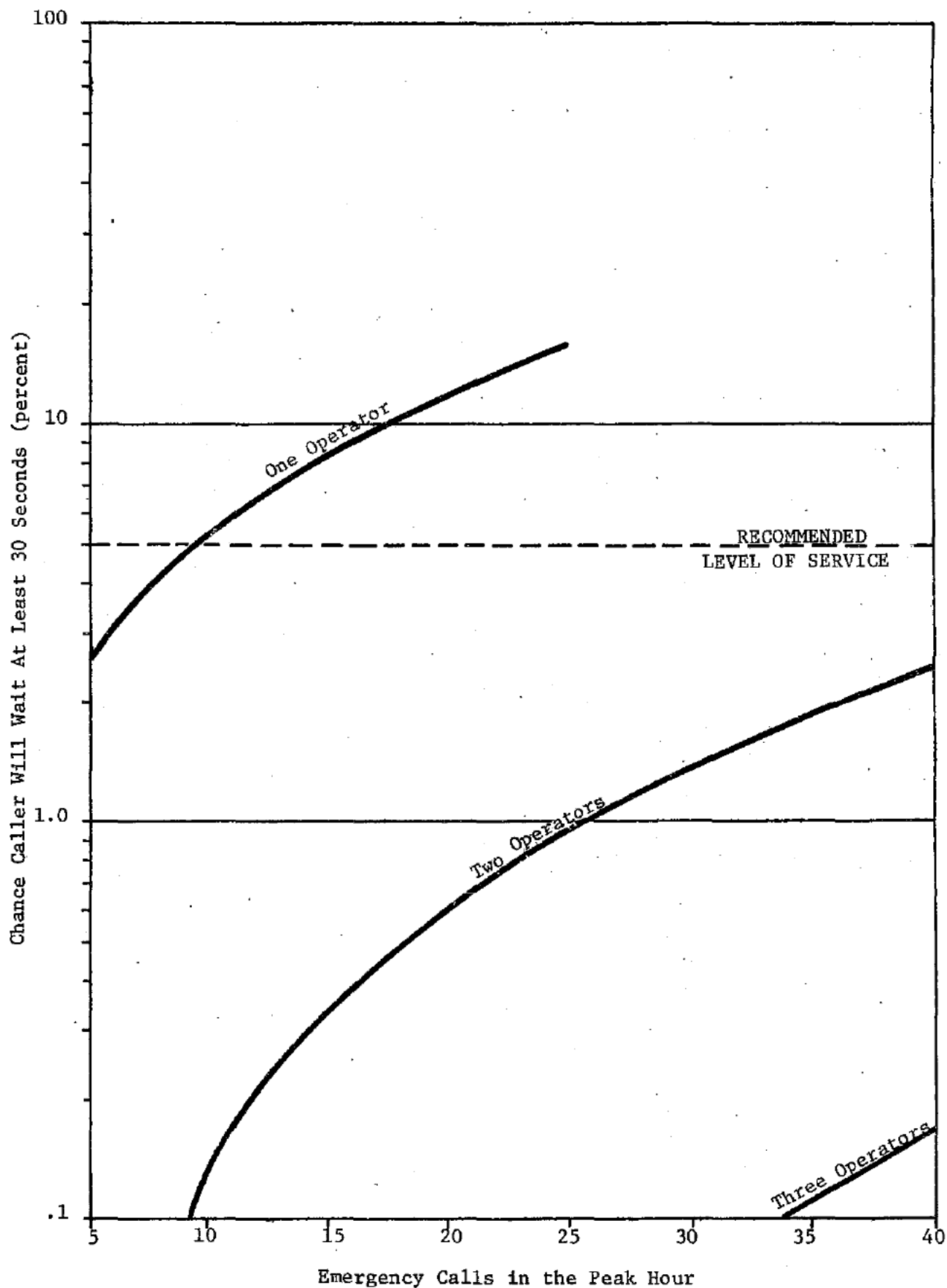


FIGURE 14-E. ESTIMATED COMPLAINT OPERATOR REQUIREMENTS  
FOR EMERGENCY TELEPHONE CALLS

(Source: PRG/PMS)

calls. Thus, the line and switchboard costs for these seven lines will be approximately \$120 per month.

Generally, it is good practice to utilize two different telephone numbers, one for emergency, and the other for non-emergency calls. Since the personnel costs represent the greatest investment, only the requirements for emergency call receipt are addressed here. Non-emergency calls could be answered as personnel become available, and the use of a tape recorded message to that effect, connected to an automatic answering device, could be used to inform the caller. Figure 14-E illustrates that one complaint operator would be able to maintain close to the recommended level of service of the anticipated 12 emergency calls in the peak hour. As expressed above, this results in a cost of approximately \$2,500 per month.

Thus, as an estimate, the costs required to maintain a complaint-answering facility for a lake where the peak daily number of visitors is 30,000 will be about \$2,620 per month or \$31,440 per year.

#### C. Alternative Solutions

Three elementary alternatives to satisfying the requirements for receiving calls are examined here:

- Rangers providing total service;
- Rangers providing partial service;
- Rangers contracting for services.

The first alternative, that of providing a 24-hour per day call receiving capability, was explored in the preceeding section. The advantages of this approach is that it provides a centralized location where all problems pertaining to a lake facility may be handled. Its disadvantages are in the areas of communications center delay and costs. The delays incurred are in the processing of emergency calls in cases where local public safety agencies, such as police or fire, need to be called in. It is generally unacceptable to design a system with a "built-in"



delay factor for emergency situations. In addition, the costs that will be incurred in operating such centers at lake facilities appear to outweigh the potential benefits. This disadvantage is highlighted by the comparison of the seasonal and transient characteristics of the lake populations with the more stable characteristics of populations served by local law enforcement agencies. That is, at lake facilities, the peak conditions for which the system must be designed may occur only a few times a year where in a local police context, peak conditions may often be observed several times a week throughout the entire year.

Partial notification receiving services provided by the rangers comprise the second alternative. Under this approach, personnel may be available to answer incoming calls fewer than 24 hours per day (for example, 8 a.m. to 12 p.m.), for full 24-hour periods during the weekends and weekday holidays, for various times determined by the seasonal attendance patterns, or a combination of these strategies. This alternative has a cost advantage over the first alternative in that fewer personnel would be required to operate the system although the same amount of equipment would be required. In addition to having the same basic disadvantage as the first alternative, this approach also involves a "confusion factor." This is the problem faced by a visitor who does not understand who is to be called at 9 p.m. on a Sunday evening late in the summer. This problem may be rectified, in part, by clearly posting and maintaining easy-to-understand instructions at various locations throughout a lake facility, especially at telephone locations.

The third alternative is to arrange or contract for the call receiving services to be provided by another agency already committed to providing this basic capability. The general trend in providing these services however, is through the implementation of the 911 universal emergency telephone number. For example, Police Standard 231.6 promulgated by the National Advisory Commission on Criminal Justice Standards and Goals<sup>3</sup> states:

"Every police agency should, by 1982, obtain single universal emergency telephone service and the cost of such service should be borne by the private telephone subscriber."

Over the next several years, more and more people will become acquainted with the 911 system and will tend to automatically use this number in emergency situations. Typically, 911 centers will be organized on a county or regional basis and will be staffed by professionally trained uniformed and civilian personnel. The costs of operating such centers are usually apportioned among the participating agencies.

The apparent inevitability of centralized and consolidated emergency call receiving centers providing 24-hour professional service makes the third alternative a desirable choice. This concept has the advantages of minimizing the delay for emergency calls, and would be designed so as to enable the easy transfer of those calls to the rangers which they are best suited to service. Non-emergency calls received at the 911 center would be referred to other agencies, but the delays that would be incurred here are more acceptable because the handling of these calls is not critical. Under this concept, rangers should be on the scene of an emergency or potentially dangerous situation to provide an initial assessment and perhaps modify the public safety agency response that would be required or may have already been initiated.

#### D. Additional Needs

Regardless of the alternative selected for implementation at a lake facility, the primary need is to provide a capability which will enable a visitor to rapidly contact an agency that can provide the assistance he may require. Various types of equipment for use by visitors have been considered including alarm boxes (both the push-button and voice types), fixed radio devices, sound-powered telephones, and minaturized personal alarm devices. For reasons of installation costs, maintenance, false alarm rates, and familiarity, the pay-telephone is proposed as the device best suited to these needs.

The Standard for Communications, in Chapter 8, specifically established a minimum level of effort to reach adequacy. It is expected that unique areas with a history of high incidence of emergencies (e.g. tornadoes, floods, etc.) may wish to exceed the standard. Since the installations of these pay-telephones are likely to result in a money-losing proposition for the telephone company, it may be necessary for the Corps of Engineers to make an agreement with each of the telephone companies involved to minimize these losses, such as guaranteeing a monthly minimum gross return from these installations. A minimum return of approximately \$30 per month per telephone (or \$360 per year per telephone) would appear to be reasonable.

These telephones should be the type for which no money is required to access the Operator or the 911 emergency number. This feature, which may need to be negotiated with the telephone companies, is an essential element in providing unrestricted access for emergencies. Finally, the telephones should be labeled, indicating the proper procedures and telephone numbers for placing emergency and non-emergency calls to the public safety agencies and the rangers, and should be located in accordance with objective 5-1.

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## Chapter 15

### TECHNICAL SECURITY OF THE PHYSICAL PLANT

#### A. Introduction

The dams, reservoirs, power plants, canal locks, and other similar water resources projects operated by the Corps of Engineers each require some degree of security for two major reasons. First, some of these installations, such as power plants, need to be adequately protected against intrusion by persons intending to gain control of or damage these facilities. Second, the security of these installations should also afford some degree of protection to visitors, thus minimizing the chances of accidents. Naturally, the type of security measures to be employed will be dependent upon the relative importance of the installation to be protected and the accident threat it may pose to the visiting public.

Although the majority of Corps installations are protected by some means, there is a need to reexamine security requirements for one or more of the following reasons:

- Existing security systems, designed years ago, may not provide adequate protection in today's changing environment.
- The time required to respond to a security problem may be excessive because of delays in the notification (alarm) process or in the response process or both.
- New Corps policy in law enforcement may dictate changes in operations and security.
- Current technology can provide reliable security systems at modest costs which may, in part, make up for deficiencies in existing systems.

The following paragraphs highlight the basic features of the major alternatives in providing facilities security.

## B. Security System Alternatives

The past decade was one of dramatic growth for security systems technology. The state of the art was advanced in the areas of alarm systems, surveillance systems, control systems, and others. This section summarizes security system concepts, both hardware and personnel, as they relate to the problems faced by, or anticipated by, the Corps of Engineers.

### Access Control

The primary means of controlling a restricted area is through the use of mechanisms which limit access to an area. These devices include perimeter fences, locked gates, adequate lighting and posted notices. In buildings, locked steel doors, windowless rooms for sensitive areas, limited access corridors, etc., contribute to the security of an installation. Personnel authorized to be in these areas may wear badges which, when equipped with a magnetically coded "stripe," can function as keys to allow access to other areas. Alarm devices, discussed below, may be incorporated into some access control devices to notify Corps personnel of a possible intrusion.

Although these types of devices are relatively inexpensive, they are essentially passive and, as such, represent only a deterrent. Unless they are specifically alarmed, or continuously observed, no notification is given when these mechanisms are defeated.

### Alarm Systems

The need to quickly determine a change in the local facility environment may be met through the use of alarm systems serving two purposes. The first is to detect changes in such important parameters as ambient temperature, water levels, air purity (smoke detection), etc. These functions are usually performed by electromechanical sensors located at appropriate sites throughout an installation. The second type of alarm system is that oriented toward the detection of unauthorized personnel (intrusion) in a restricted area. These occurrences may be determined through the use of high frequency, ultrasonic, microwave, infrared, optical, and other

types of detectors. Both types of alarm systems would be connected to a central terminal point discussed below.

The advantages of alarm systems are that they provide rapid notification of a change from normal conditions and do not require the constant attention of an operator. The main disadvantages lie in the fact that many such systems produce false alarms which may be the result of a situation such as the failure of a component or the triggering of an intrusion device by an animal. Of course, each alarm would need to be investigated even if it is suspected to be false.

#### Surveillance Systems

The mainstay of modern surveillance systems is the Closed Circuit Television (CCTV) system which includes cameras, monitors, and video tape recorders which may be incorporated into the system to enable the playback of observations. A CCTV system may be used by staff or in combination with an alarm system to detect or to verify the presence of unauthorized personnel. CCTV offers the advantage of minimizing false alarms by enabling easy verification from a remote location and, therefore, does not expose Corps personnel to unnecessary risks. Also available are Low Light Level (LLLTV) cameras which enable the observation of areas in poorly lighted areas. The disadvantages of CCTV systems are in their relatively high equipment costs and the requirement of personnel to continuously observe the pictures being received.

#### Control and Communications

All of the security systems can be supervised from one or more central control locations where alarms may be received and CCTV pictures monitored. The center may also function as the dispatching point or provide a link to a dispatching point from which Corps personnel may be directed for investigative purposes.

Various options are available in designing a central control station including fixed remote terminals, such as in another office or in the supervisor's house, and mobile terminals which could enable a

single guard or outside law enforcement agency to rapidly respond to an alarm when the control center is not manned. Particular alarms could be associated with automatic diskings equipment which would notify the rangers, local or state police, or any other designated person or agency.

As indicated above, the various types of systems that may be put into use at a Corps facility should be terminated in a central center, and preferably in a single console. The design of this console should be dependent upon the equipment currently in use, as well as foreseen, to meet future requirements. Most importantly, the console should be designed to be easily operated by the personnel most likely to be assigned those duties.

C. Courses of Action

The Corps should periodically and critically review the security requirements and capabilities at each of its facilities in conjunction with the provost marshal's evaluations and compare these results with the equipment and systems capabilities offered by various manufacturers in the field. It should be noted, however, that pre-packaged systems often are not ideally suited to specific requirements. Rather, a modular building block approach, allowing the use of standard equipment while providing flexibility for future expansion that may be required, is recommended.



## Chapter 16

TRAINING CORPS RANGERS FOR LAW ENFORCEMENT  
AND VISITOR PROTECTIONA. Introduction

In virtually every occupation and profession today, central themes of concern are the educational preparation, training, and development of the manpower involved. In industry, the rapid advance of technology and automation has created a demand for higher levels of education and skills among workers. At the same time, the need for professional technicians in education, health, counseling, and the broad spectrum of other community services is growing faster than the educational system can produce them. At the national level, a great deal of effort is going into a continuous and long-range study of the manpower resources of the country. Along with this is being developed a national policy dealing with the upgrading of educational levels and skills as well as with the distribution and the most effective utilization of national manpower resources. In effect, the manpower problem is becoming defined more in terms of an educational and training crisis rather than in terms of manpower shortages.

The recreation ranger profession has not only been caught up in this complex of social and economic change but it is also feeling, more directly than in the past, the combined impact of new concepts and techniques in management, the technologies underlying the application of system analysis to social problems, and the results of research on differential effectiveness of programs. Even the traditional boundaries which kept rangers confined within the conventional limitations of resource management, recreation program development, and visitor security are undergoing considerable reexamination. Implied in all of this change are some very

critical issues relating to the utilization of professional and nonprofessional personnel, the validity of existing formulas of staffing ranger services, and the kinds of training that will contribute effectively to the programmatic changes which seem imminent.

The increased need for and the utilization of recreation areas is a fact of life in the United States. The tremendous increase of visitors in recreation areas has brought a natural increase in the number of crimes committed and consequently, an increase in the need for visitor protection. Clearly stated, the growth of recreation areas has resulted in a greater flow of people and has multiplied the opportunity for disruptive behavior to operate. This profound change and increase in the use of recreation areas has in many instances seriously strained normal utilization of the areas and has notably increased social tensions. Hence, the recreation areas are fast becoming very much in need of increasing control by Corps officials.

The presence of crime is now a central factor in American life, with an increasing number of citizens becoming victims of crime. All citizens are victims of the fear of crime. The Army Corps of Engineers is no exception. The problem of law enforcement at Corps lakes as discussed in Chapter 6, indicates that the public is exposed to a considerable amount of risk of being victimized at Corps projects. While we do not recommend, in response to this situation, that Corps rangers become full law enforcement officers, there is a significant amount that they can accomplish within their own capacity to make recreation areas safer for the visiting public. Without sufficient training, however, this capacity to respond appropriately will be significantly reduced.

During the past decade, major improvements have been made in law enforcement training. Statewide training legislation, federally funded community relations programs, and the response of educational institutions to the learning needs of law enforcement agents have added measurably to the quantity and quality of training at all levels.

B. Purposes of Training

Any effort to improve the ability of rangers to respond appropriately to the needs of park visitors, must embrace an examination of the importance of preparation of both newly appointed and career officers. One cannot deny the fact that the duties and responsibilities of a ranger are sufficiently complex that he must receive immediate indoctrination to enable him to function effectively.

The basic purpose of ranger training is to prepare rangers so that they may perform their job-related tasks in such a way as to assure the maximum level of effectiveness and public satisfaction. The accomplishment of this general purpose occurs when the trainee has been provided with the specific information essential to his understanding of his duties, when he is given an opportunity to recognize and develop the essential skills of his task and when his attitudes are made consonant with the Corps philosophy and objectives.

Beyond the purpose of developing the individual's abilities, the training experience is also utilized for other purposes. For example, formalized training programs frequently serve to provide the employing agency with its first opportunity to evaluate the trainee to determine his potential suitability. Where training is offered to newly appointed rangers, it should be a requirement that they satisfactorily complete the training program in order to retain their position. Thus, training becomes an extension of the selection process. Another important reason for providing training to newly appointed individuals is to reduce the liability for damages incurred by one of their agents. When it can be demonstrated that the agency discharged its responsibilities through adequate training, that liability is often reduced or eliminated.

The present system of ranger training for the Corps of Engineers is insufficient. It consists, on the average, of three days of training in the enforcement of Title 36 Rules and Regulations and several slide photo programs relating to the issuance of citations and warnings under Title 36.

The actual and potential scope of responsibilities which the ranger is called upon to perform requires a significantly greater degree of both pre-service basic training and continuous in-service refresher and advanced training. The development of both of these forms of training should be a priority in the process of professionalizing the ranger force and should follow the recommended 50-hour minimum training requirement set forth in the Standards section of this report. The development of the training program will generally follow the following format:

- Perform an analysis of current and projected ranger skill requirements, basic knowledge needs, and the overall requirements associated with protecting the natural resources and assisting law enforcement in protecting visitors.
- Compare training needs with the current level of training.
- Analyze the current and projected training needs insofar as Corps developmental planning requirements are concerned.
- Review the training programs utilized by related park and recreation systems.
- Develop alternative methodologies for the administration and organization of the training program.
- Design a curriculum which meets the needs of the ranger force.
- Develop an implementation plan.
- Evaluate the program after the first year of operation.

The process of planning and operating a training program is generally divided into two major areas of responsibility; namely, the training program and its administration.

Administration is concerned with the management of personnel, money, and resources in order to achieve an effective, efficient and economical operation.

Some general administrative considerations in program development are: determining the type of training needed; the personnel to be trained; statement of the objectives and standards of performance to be achieved;

the training philosophy; policies and procedures necessary to achieve these objectives.

The degree of success in a training program is generally in direct proportion to:

- The desire and ability of the administrator to establish the program,
- The desire and ability of the personnel involved to accept such training.

Analyses of successful programs tend to reflect certain characteristics that are typical of a productive, on-going and expanding program. These qualities include, but are not limited to:

- A high degree of personal contact and mutual interest in the program by the chief administrator with those responsible for implementing the program. This does not imply a failure to delegate but rather demonstrates his support, concern and involvement.
- A constant awareness by the administrator of the need for support and participation by the community. In addition to financial support, it entails developing a closer working relationship and understanding between the ranger and the community.

#### C. Approach to Training

A primary factor in establishing and conducting a training program at a moderate cost is to actively solicit support, involvement and participation by interested and qualified members of the local community. Assuming that a positive attitude toward training is present, conferences with supervisors and field personnel and relevant law enforcement agencies can be extremely productive.

The Corps should consider a multi-level approach to training which could consist of the following interrelated aspects:

- Basic Recruit Training. It is recommended that, at a minimum, 50 hours of recruit training be conducted prior to the assumption of ranger duties for both permanent and seasonal employees. Human relations training is mandatory. This could be accomplished

for seasonal employees one week prior to the season's opening. Another alternative would be to conduct one or two training sessions during Christmas and/or Easter break. This is the best time to train permanent employees because of the lull in visitation and seasonal college students could also attend. The mutual benefit from this contact would be worthwhile.

- Roll Call Training. This form of training is widely used by law enforcement agencies and could be easily adopted by the Corps for the fulfillment of pre-service and on-going training requirements. Utilized consistently, 15 minutes just prior to each shift, these sessions can be used to discuss subjects of direct and timely pertinence to the site or to refresh previous training. Training cassettes which have been developed, should be expanded to cover more areas of concern. The concept of the IACP Training Keys is a good model.
- Intensive In-Service Training. During the course of each year one or more one-week courses should be offered to permanent as well as part-time rangers. Provided in the form of workshops, each ranger should be required to attend at least one annually in alternating subject areas. Part-time seasonal employees should be granted access to these courses as well as given credit for attendance toward later potential full-time employment.
- Supervisory and Management Training. This form of training should be provided for those seeking promotion to supervisory or managerial levels or for those who are presently in those positions. Subjects particular to recreation resource management should be emphasized together with more generic subject matter such as the psychology of leadership, decision-making, role of the supervisor and relationships with subordinates, work performance appraisal, managing the organization, management functions, planning and related topics.

Sources of information related to instruction in these areas can be obtained from local vocational education, junior colleges, universities, technical institutes, regional police training schools, and other agencies involved in training. While the scheduling of personnel for enrollment to various courses should consider particular needs at the Corps and project levels, it can also provide the opportunity for continued self-development by those rangers who demonstrate special interest, aptitudes or abilities.

As has been indicated in the above, the ranger trainee and the part-time seasonal employee should be given every possible opportunity to increase their professional capabilities.

The goal of the training program should be to increase professional competence to the utmost degree possible while providing the necessary incentives to maintain qualified personnel. One significant way in which this can be accomplished is through the maximum development of the seasonal employee. These individuals, who are primarily college students, are valuable augmentations to the permanent ranger force. Their duties and job responsibilities are in large measure very similar to those of their full-time counterparts, particularly in respect to public contact.

To fulfill the most effective manpower allocation plan recommended in this report, it is maintained that these individuals can and should be put to much greater use than is presently the case. In their daily operations these individuals will naturally serve a significant role in a resource and visitor protection capacity and should be trained in the same disciplines as the full-time ranger, although they need not be given the power to issue citations. They should be fully aware, for example, of public relations techniques, interpersonal relationships, the use and abuse of authority, recreation skills, management of the environment and similar matters as the full-time ranger. It has been recommended, therefore, that basic and in-service training be offered to these individuals just as it is to the full-time ranger. Part-time seasonal employees should additionally receive credit toward government service if these courses are successfully completed and applied to later full-time service.

The encouragement of college and junior college education for full- and part-time personnel alike should be a priority for the Corps. Presently the Federal Government is financing the education of a number of rangers in appropriate fields of study. This should be propitiously encouraged at the project level. In addition to receiving credit toward government service for summer employment, the seasonal employee should be

able to utilize a form of the "co-op" program presently available to other government employees such as the Law Enforcement Education Program provided by the Law Enforcement Assistance Administration. This program allows a college student to attend the university or college of his choice at government expense while serving interim periods on the government job in which he or she is being educated. Upon graduation the individual is obligated to serve a minimum amount of time in the actual governmental position for which he is training.

If the Corps of Engineers wishes to creatively expand their recreation role and to utilize the best possible personnel in this effort, it must accent these and other forms of career development and personnel retention practices. The expenditures associated with these programs are easily repaid when:

- Personnel who are trained and experienced in the recreation-resource field are not lost to other professions.
- Trained and experienced seasonal employees consistently return to the same summer jobs without the need for extensive basic training.
- Seasonal employees consistently pursue full-time employment after initial contact with the Corps.

The cost savings associated with accomplishments in these areas more than offset the initial expenditures incurred in training and personnel benefits and options plans.

Certain other areas of study should be considered for all levels within the organization. For example, the local junior college, university and adult continuing educational programs may also provide instruction in the behavioral sciences such as psychology, sociology, human relations, juvenile delinquency and others. Exposure to these areas can serve to increase the understanding of the individual officer and improve the overall efficiency of the department.



Nearly all visitor protection tasks involve people, and the accomplishment of the law enforcement purpose necessitates a control of people that is best affected by winning their compliance with laws and ordinances. Thus, an important training objective is an understanding of human inhibitions, emotions, reactions, and attitudes, and of techniques that promote desirable relationships between the ranger in the law enforcement function and the public. Training should also emphasize that the ranger must scrupulously avoid corruption, brutality, and prejudice.

Regardless of the length or type training received, complete and accurate training records should be maintained on each ranger. These records not only provide a basic source of information for scheduling needed courses but insure that training of individual officers is not repeated nor particular areas of instruction neglected.

For an effective law enforcement training program for rangers to be formulated on anything approaching a rational and scientific basis, it is obvious that as much information as possible relating to the rangers job, in the ranger-visitor protection function, must be collected. It is essential to know how the ranger views his role in enforcement of rules and regulations and how the recreation community receives the ranger in this security role. When we know accurately what it is that a ranger does during his tour of duty concerning resource and visitor protection, it will become a much easier matter than it is now to make decisions relative to what a ranger should be trained to do in this function. Then the relative importance of each component of the training program can be determined as well as the amount of time devoted to each component.

In the section on Standards, the PRC/PMS recommendations for the ranger's future role were discussed. The cooperation with the law enforcement element was stressed. The importance of the ranger's role in this area cannot be underemphasized.

#### D. Possible Basic Training Courses

The following courses are offered as an example of some of the law enforcement inputs to the overall ranger training program. Courses dealing with the natural sciences and resource management are not included here because this emphasis for the report has been on law enforcement. However, it is felt by the study team that these courses are of the utmost importance and should be expanded to meet the growing needs of recreation. The following courses are offered for possible inclusion into the training program from the law enforcement perspective:

- Patrol and Traffic Training;
- Rules of Evidence;
- Federal, State, Local Ordinances and Special Ordinances;
- Ranger Jurisdiction and Authority;
- Physical Training;
- Defense Tactics;
- Department Orientation and Policy;
- Community Relations, Human Behavior, Public Relations;
- First Aid and Lifesaving;
- Communications Network Training;
- Public Speaking;
- Report Writing;
- Driving Techniques;
- News Media Relations;
- Juvenile Behavior;
- Narcotics and Drug Abuse Training;
- Law Enforcement Technology;
- Care and Operation of Departmental Equipment;
- Geography of Patrol Area;

- Elements of Preliminary Investigation;
- Departmental Procedures in Handling Catastrophes, Disasters, and Fires;
- Departmental Procedures Relating to Civil Complaints, Domestic Complaints, Mental Illness, Animal Bite Cases, Trespass Complaints, Drug and Drunk Driving Complaints;
- Handling of Lost, Stolen and Recovered Property;
- Organization of Federal, State and Local Courts and Military Courts;
- Court Demeanor and Testimony.

Additional training should include:

- Instruction in law, psychology, and sociology specifically related to interpersonal communication, the ranger-law enforcement role and the community;
- Assigned activities away from the training academy to enable the ranger-officer recruit to gain specific insight in the Corps area, criminal justice system and local community;
- Remedial training for individuals who are deficient in their training performance but who, in the opinion of the training staff, demonstrate potential for satisfactory performance;

#### E. Career Development

If the Corps of Engineers wishes to effectively achieve professionalization in their ranger program, they must recruit and maintain quality personnel and promote highly adequate supervisors. A career development program is a means to this end.

The objectives of career development for the Corps of Engineers should consist of:

- Assuring that all line personnel are kept informed on the most recent professionally accepted standards of performance and knowledge;
- Assessing present personnel to determine if persons of considerable potential are available for managerial, professional, and specialist positions;

- Allowing line staff a greater degree of freedom and options for vertical mobility in the organization.

Due to the newness of the ranger program and the ambiguity of objectives, a career development program has not become fully operational within the Corps organizational structure.

One of the principal problems has been the reliance upon experience and time-in-grade as the primary indicator of competence and promotability. Seniority may be indicative of endurance, but it in no way suggests a level of competence. Using experience as an index, which is difficult to assess in the first place, there is no assurance that the receipt of any given experience has the capacity, interest, or desire to evaluate and assimilate an experience as a learning phenomenon. It should be obvious that experience does not, in and of itself, prepare personnel for complex and intricate supervisory and managerial positions.

There are a number of avenues which the Corps of Engineers may utilize to program career development. The following approaches may serve as outline designs or guidelines for satisfactory creation of a career development program.

#### Seasonal Employee Program

The success of a career development program is contingent upon the ability of the organization to seek, find, attract, and retain competent young men and women. The retention of seasonal employees and the importance to the Corps program was thoroughly discussed in previous pages of this section. This program should be implemented to enable the Corps to recruit a high calibre of employee for the future.

#### Job Rotation

The creation of a well-planned, closely monitored assignment rotation program between lakes can maximize the complete organizational

experience that ranger personnel can gain. Periodic rotation will also give rangers the opportunity to assess and evaluate other assignments, tasks, and functions they may wish to strive for on a permanent basis and will add to the feedback process for evaluating operations.

Job rotation, which has been pursued effectively by other recreation agencies, has served to increase the employees understanding of the overall organizational policies and procedures because of this lack of ingratiating into the local environment. This program would be more acceptable to employees if low-cost housing were provided at the lakes. This would also aid in recruitment.

#### F. Implementation and Management of Training Resources

With the proper and adequate training curricula in mind, considerations of the management of training resources and determination of the most cost effective sources and means for implementation of training must be established.

A number of alternatives are presented:

1. Establishment of a central Corps of Engineers ranger training center to include resource and visitor protection, and management training.
  - a. Advantages
    - (1) Established centralized facility
    - (2) Centralized administrative and operational control
    - (3) Uniformity of training; i.e., curricula and staff
    - (4) Integral cooperative training in visitor protection and other ranger functions indigenous to Corps recreational resource areas
    - (5) Lower long-term costs after initial establishment due to avoidance of contracting and/or duplicate facilities
  - b. Disadvantages
    - (1) Partial duplication or overlap of efforts with other established training programs
    - (2) Transportation, food and housing must be provided trainees
    - (3) High initial start-up costs
    - (4) Diversion of field talent to full-time training duties

2. Training at Divisional Level

a. Advantages

- (1) Decentralization to fit local Divisional and recreation-resource area problems
- (2) Progressively structured on-the-job training
- (3) Closer affinity to geographical work area
- (4) Lower transportation and living costs for trainees
- (5) Better exposure to Divisional chain of command

b. Disadvantages

- (1) Lack of uniformity of training
- (2) Lack of uniformity of qualified training staff throughout the Corps
- (3) Lack of centralized administrative and operational control
- (4) Duplication of efforts with other divisions, hence increased costs due to this situation

3. Contracting with the U.S. Army Provost Marshal's Office for training with Military Police

a. Advantages

- (1) Established comprehensive law enforcement curriculum
- (2) Lower costs for initiation phase
- (3) Elimination of separate administrative costs
- (4) Department of the Army controlled

b. Disadvantages

- (1) Reinforces different perspective from ranger/conservation officer mission
- (2) Lack of Corps administrative, operation and curriculum control
- (3) Requires additional costs for specialized Corps recreation-resource training
- (4) Law enforcement training tailored to U.S.M.P. is not totally applicable to visitor protection procedures at Corps recreation-resource areas

4. Contracting with state and local law enforcement agencies

a. Advantages

- (1) An established comprehensive law enforcement curriculum
- (2) Awareness of local ordinances and procedures
- (3) Fostering of cooperative relations and arrangements with local agencies

b. Disadvantages

- (1) Lack of Corps administrative and operational control
- (2) Requires additional costs for specialized Corps recreation-resource training
- (3) Lack of uniform training between regions

- (4) Constant contractual renegotiation and costs year after year
  - (5) Lack of training addressed to specific ranger-visitor protection problems
  - (6) Dependence on quality of local agency's training
- 5. Contracting with National Park Service for training
  - a. Advantages
    - (1) Established curriculum
    - (2) Uniformity of training
    - (3) Recreation-visitor protection awareness
    - (4) Federal orientation
  - b. Disadvantages
    - (1) Lack of Corps administrative and operational control
    - (2) Continuing contractual costs
    - (3) Requires additional costs for specialized Corps recreation-resource training
- 6. Consolidation of training academies for Army Corps of Engineers recreation-resource rangers, National Park Service and U.S. Forest Service staff, to include recreation, resource protection and law enforcement training in a uniform curriculum.
  - a. Advantages
    - (1) Uniformity of training
    - (2) Shared costs
    - (3) Recreation-visitor protection awareness
    - (4) Central location
  - b. Disadvantages
    - (1) Major organizational and political adjustments
    - (2) High start-up costs
    - (3) Lack of autonomous Corps administrative and Operational control

The selection of the best alternative must be based upon a concentrated study by the Corps of Engineers with inputs from the Division, District and project levels. In largest measure this study, as previously outlined, should concentrate upon the cost of each alternative in the context of maximizing staff development and maintaining the best personnel for career positions within the Corps recreation program.

## Chapter 17

### LAW ENFORCEMENT AND VISITOR PROTECTION PROGRAM PLANNING

#### A. Introduction

This chapter involves the implementation of objective 8-1 which reads, "The Corps should establish a position for a professional law enforcement specialist at the Division level to assist in the planning and design of recreation areas and to coordinate law enforcement and visitor protection planning and services of the Districts within the Division."

Organizationally, the law enforcement (LE) specialist would work closely with the provost marshal, also on the Division level. The provost marshal, whose primary role lies in the areas of maintaining security of the physical plant and sensitive information, should not attempt to over-extend their capabilities. The LE specialist will be primarily concerned with the Corps role in recreation, which is not the perspective the provost marshal is oriented towards or has been trained to fulfill.

In order for the Corps to successfully promote a law enforcement and visitor protection program, a panoply of changes and additions in policy and operations at all levels will need to be initiated. The effectiveness of such changes will hinge on effective decision-making reflecting expertise, which can only be introduced into the Corps organization via the use of recreation-oriented law enforcement specialists.

#### B. Operational Duties

The LE specialist will be involved on every level of planning and assistance for law enforcement and visitor protection at the Corps lakes. Specifically, the LE specialist's duties will include:



- Advise the Division Commander on the implementation of Goal 8.
- Assist OCE in producing a manual (e.g., an Engineering Regulation) of procedures and management for law enforcement and visitor protection.
- Periodically review and update the manual.
- Review and evaluate the Districts in their performance and productivity in implementing the standards.
- Assist the lake managers in coordinating and contracting with law enforcement.
- Coordinate the physical security program with the Provost Marshal.
- Review all records relating to crime and vandalism at the lakes and submit quarterly reports to OCE.
- Investigate and review citizen complaints charged against rangers or law enforcement agents.
- Assist lake managers in preparing and updating annual law enforcement plans and coordinating such plans with recreation area master plans.
- Assist in the development of victimization surveys.
- Assist in the development of a detailed study to identify specific environmental designs and management practices and standards that serve to minimize or eliminate existing crime and visitor protection problems at Corps lakes.
- Assist lake managers in devising work schedules so that maximum presence of trained, permanent rangers is available, on each shift, to supervise seasonal employees.
- Assist the districts in implementing an improved recreation visitor education program in crime and security hazards (e.g., lock cars, put equipment in car trunks, location of emergency phones).
- Assist lake managers in gaining support and involvement from the local community.
- Assist in the supervision of ranger training by developing curriculum, selecting instructors, and evaluating the instruction.

C. Summary

The above list of duties illustrates the kind of capability needed at the Division level to assist in the formulation and implementation of law enforcement and visitor protection services at Corps recreation areas. The position of law enforcement specialist at the Division level appears to be a strategic location to be able to assist District recreation planners and lake managers in developing law enforcement plans and integrating these with recreation area master plans. The Division relationship with OCE is close enough for the LE specialists to assist in the preparation of an Engineering Regulation or manual on law enforcement and visitor protection policy and practice.

## CHAPTER 18

### PARK PRACTICES FOR LAW ENFORCEMENT

#### A. Introduction

There are many problems associated with improving law enforcement in Corps recreation areas that relate to the layout and management of the areas. Planners, designers, and managers of recreation areas seek to provide facilities and physical organization in a manner that is conducive to a visitor achieving a satisfying recreation experience. Indeed, the security and safety, both real and perceived, of visitors at a recreation area is an important ingredient of the recreation experience.

The findings and observations in this chapter pertaining to park and recreation management practices for enhancing law enforcement and protecting visitors and resources are based upon:

1) Corps survey questionnaire results; 2) information and impressions obtained from field visits to representative Corps lakes and state and local recreation and park agencies; 3) interview discussions with Corps administrators, planners, and rangers and personnel of other federal, state, and local organizations involved with park, recreation and law enforcement and environmental protection; and, 4) relevant literature pertaining to the problem.

Where the development of direct statistical bridges between causes, effects and remedial measures for certain problems were unattainable within the scope or time constraint of this study, professional assessments are made reflecting the philosophy and state of the art conventions of law enforcement and park and recreation management. It follows that the Corps of Engineers will exercise its own judgment in implementing measures considered appropriate for its mission and recreation resources management program.

## B. Planning for Law Enforcement Needs

There are instances where visitor protection and law enforcement problems can be lessened or avoided if they are anticipated in the initial planning and design of a new recreation area, or expanding or upgrading an existing recreation area. Factors which can be considered to anticipate law enforcement needs are described below.

### Forecast Social and Economic Characteristics

Forecasts of the social and economic characteristics of visitors will enable analysis of recreation activities and facilities that will satisfy needs and be of interest to users. Certain groups of people with similar economic or cultural characteristics will have particular kinds of recreation interests or motivations that may be anticipated and appropriately weighed in planning. Certainly a fishing pier is not going to appear relevant at a beach area frequented by students from a nearby college town. The lack of relevancy in recreation system design is often the thing that triggers boredom, frustration, or a lack of identification with the recreation area. Antisocial behavior could stem from such reactions.

Strengthening the behavioral considerations in the planning and projections methodologies practiced by the Corps would likely result in more sensitive and revealing insights into user needs and desires from both recreation and security.

### Analyze Crime Rates

Evaluation of information on rates and kinds of crime and disturbance from local areas, regions of predominant visitor origin, and Corps projects will enable better assessment of the character of law enforcement to be anticipated in managing the recreation area.

### Conduct Site Study

Needs for security surveillance and public safety should be considered in detailed site evaluations for visibility, access and circulation, and orientation of facilities.

Involve Law Enforcement Specialist

Law enforcement specialists and ranger personnel familiar with the area and potential visitor character should participate in planning and designing recreation areas. Preliminary Corps recreation area plans should be circulated to local and state law enforcement agencies for review and comment.

Concurrent with the benefits to coordinate law enforcement considerations with a more comprehensive recreation management program is the actual improvement of law enforcement planning. Just as the study found little consideration of law enforcement in planning Corps recreation areas, it was also found that law enforcement agencies do little planning that would be suitable as an input to planning a recreation area. If recreation goals are to be met at a recreation area, and if law enforcement efforts are to serve the goals of a recreation area, then law enforcement planners will need to better address their practices to the park and recreation environment.

C. Establishment of a Comprehensive Recreation Program

The role of Corps rangers focuses on controlling and assisting visitors in the use of developed facilities and lake resources. The Corps does not provide recreation leadership in the form of programming organized or unorganized activities, or providing special facilities that reflect the variety and flexibility of changing recreation interests of urban populations.

A comprehensive recreation program involves three essential elements: (1) resources, such as areas, facilities and equipment (and the management thereof); (2) programs, such as organized and unorganized, group or individual activities; and, (3) leadership--the provision of encouragement, assistance and education in participation of these programs. To manage resources alone is only part of the recreation job. Improved

law enforcement, both in the form of services of peace officers and rangers and in park management techniques, provides security for the individual recreationist. This feeling of security in pursuing his or her recreation interest is a requisite to achieving a fulfilling experience. Similarly, the same security provided to the natural resources and developed facilities maintains a quality of usefulness of the recreation environment which is also essential to satisfaction of the individual.

The study revealed, however, that few lake managers or rangers felt an expanded program of recreation activities would have anything but minimal effect on improving visitor protection and law enforcement. The expression of this attitude was, in one instance, made at a Corps lake surrounded by several overlapping metropolitan areas, with each having local recreation agencies providing organized recreation programs. The juxtaposition of the two obviously different attitudes and philosophies reflects the basic differences between a "resource" oriented and a "people"-oriented view of recreation management roles.

Findings of a national survey of crime and violence in park and recreation areas conducted by the American Park and Recreation Society (APRS) revealed the incidence of crime and vandalism as higher in parks than in community centers, playgrounds or other special recreation facilities<sup>1</sup>. The survey further indicated the incidence of crime and vandalism increased with more intensive use of parks. In most urban park and recreation systems, recreation programming and supervision is generally directed at special activity areas and facilities. Park areas, as such, usually receive little recreation activity service.

Thus looking at this problem from a recreation perspective, there appears to be as much a connection between lack of recreation leadership and crime in park areas as there is between a lack of law enforcement surveillance and crime. Stated more clearly, the incidence of crime and vandalism is lower in areas where recreation programs more actively involve people. While both Corps and APRS surveys revealed the general opinion that the main remedial measure for controlling crime and vandalism involves increased security efforts, the benefits of

increasing recreation program efforts in high crime park and recreation areas still appears to have been overlooked.

It is not the purpose here to criticize the Corps of Engineers from a recreation policy standpoint. In actuality, when considering the overall budget constraints it has been working under, the fragmentation of recreation management in general at the federal level, and the fierce competition recreation still faces against other resource and public works development programs, the Corps tenaciously manages to do a fine job. But, nevertheless, until the Corps and other federal resource management agencies extend their programs into people-related programming and leadership, the federal effort in recreation will remain incomplete.

#### The Need for a Comprehensive Recreation Goal.

The fundamental importance of the recreation goal in providing law enforcement in park and recreation areas is succinctly expressed by Mr. Jack W. Robinson, Director of the Austin Parks and Recreation Department, in stating the goals of Austin's park rangers:

"Our goal is to maintain a presence in the parks for the security of park visitors, and to provide public assistance to insure the maximum visitor enjoyment. Austin Park Ranger effectiveness is not measured by the number of tickets or citations issued, but rather, on the rangers' image of friendliness and helpfulness to the park visitor while carrying out law enforcement action when necessary."<sup>2</sup>

The Corps recreation area manager or ranger will need to adjust to different roles and be prepared for even more adjustments in the future. Illustrative of this concept are the following quotes from a recent annual report on the California State Parks System:

". . . Today they (rangers) must be managers of people, with the responsibility of educating, informing, and keeping from harm the millions who visit the parks each year. These increased responsibilities have created new recruitment and training problems that must be solved . . ."

"The rangers are becoming ever more deeply involved in interpretive programs. In response to public demand, they have developed campfire programs, nature study walks, slide shows on a wide range of subjects, and guided hikes and tours--and many more such programs are needed . . ."

"The importance of the increasing ranger involvement in interpretive programs cannot be over-estimated because such programs do far more than simply entertain the public. In the long run, interpretive programs help preserve the park resources by teaching the public their value. In the words of a veteran park ranger, 'A quality environmental experience should be our goal. A bored child or his bored family can do more damage to a park through lack of awareness and ignorance than we can cope with through regulation and enforcement. We can either educate the public or we can attempt to regulate it. There are not enough rangers, firearms, or patrol vehicles to protect a park from visitors who do not care about it'3."

Law enforcement and visitor protection services would be more effective and more easily provided if they were part of a more comprehensive recreation program of the Corps. Law enforcement should be viewed as an extension or a component element of an overall program of meeting recreation needs at Corps lakes. It is as much a part of a visitor recreation program as providing campground facilities.

From a comprehensive standpoint, a visitor protection policy associated solely with a program of managing natural resources and facilities for recreation use is doing less than the total job. A recreation program including activity, education and leadership would result in a better understanding and ability for visitors to use recreation areas. The result would be enhanced satisfaction and greater fulfillment of recreation experience, and a decrease in the propensity for antisocial behavior.

#### Visitor Management

The previous laissez faire philosophy of the Corps towards visitor activity described by Edward C. Crafts in 1970, appeared to be still visible throughout the present study. Crafts stated:



"Prevalent was a practice of lax, indifferent, or loose administration founded on the philosophy of leaving people alone to do what they want. This may be partly a subconscious extension of Corps "good-guy" philosophy . . . More fundamentally it is failure to appreciate or accept the public-management responsibility which the Corps has to protect the resources and facilities entrusted to it, as well as to protect, lead and service the users of such public property. In stronger terms, it is an abdication of management responsibility."

"From such permissiveness, indifference or inability to act stems part of the Corps problems on fees, enforcement, vandalism, crowding, exclusive private use, etc. Loose administration is believed partly deliberate policy, partly a feeling of helplessness, and partly the result of insensitivity, frustration, and immobility of Corps personnel."<sup>4</sup>

More recreation leadership could be reflected in the design of varied and flexible facilities at heavily used areas. This would also provide a management tool for distributing use to better reflect resource capabilities. The increase in interest and activity may also lessen the propensity of antisocial behavior and improve appreciation for project resources. Such leadership should also include recreation program services, such as interpretative programs with more visitor involvement, and other programs oriented toward and consistent with Corps lake resources.

In planning and designing a recreation area, recreation planners should consider such parameters as kind of activity, density of users, location, and time, in matching recreation uses with the character of project resources. These same parameters may also be used as variables in formulating law enforcement and visitor protection plans. Additionally, recreation areas subject to a history of higher crime rates and disturbances may receive priority attention for allocation of recreation program resources along with more intensive development and management and law enforcement services.

The provision of recreation areas, facilities, and programs, as well as responsive visitor protection service, will require more

attention be given to assessing the recreation needs of existing visitors and potential user populations. The continued development of more picnic sites, campgrounds, boat launching ramps, restrooms and showers, and other facilities alone will not fulfill the rising expectations, or eliminate frustrations, of urban-oriented recreation visitors. Moreover, there will be many instances where recreation needs may be met through provision of services rather than more expensive capital investment in facilities.

#### Behavioral Considerations in Visitor Protection Planning

While understanding of antisocial behavior in park and recreation areas is generally limited, several studies and surveys are mentioned in this section to illustrate the kind of insights, park practices, and visitor assistance that may evolve with further exploration.

There is some evidence that suggests a significant portion of antisocial behavior could be ameliorated by increased recreation education and environmental direction by rangers and park police. The APRS national crime survey found that over one-third of the destruction and vandalism reported in parks were caused by accident.

A study of depreciative behavior in forest campgrounds provides some preliminary insights into the nature of such behavior.<sup>5</sup> The observations of vandalism, littering, and other disturbances by campers, in this case, may provide some initial directions for developing control measures at Corps recreation areas where similar acts occur. From a park practice standpoint, responsive control measures may be reflected in planning, design and construction, resource management and maintenance, recreation programs, such as interpretative programs or outdoor education, and activity programs. These practices should be implemented in coordination with law enforcement efforts.

The distribution of depreciative acts by type is summarized in Table 18-1. This table shows that the majority of depreciative acts were not intentional crime and vandalism.

TABLE 18 - 1

## Percent of Depreciative Acts Observed

| <u>Depreciative Act</u> | <u>Percent</u>          |
|-------------------------|-------------------------|
| Nuisance acts:          |                         |
| Excessive noise         | 5.8                     |
| Health hazard           | 5.8                     |
| Unesthetic              | 2.9                     |
| Violations of privacy   | 5.8                     |
| Pets                    | <u>79.8</u>             |
| Total                   | 100.1%<br>(49.9)        |
| Vandalism:              |                         |
| Private Property        | 9.1                     |
| Campground facilities   | 61.8                    |
| Natural environment     | <u>29.1</u>             |
| Total                   | 100.0%<br>(13.2)        |
| Law violations:         |                         |
| Campground rules        | 46.8                    |
| Traffic rules           | 29.2                    |
| Civil laws              | 1.3                     |
| Theft                   | 2.6                     |
| Littering               | <u>20.1</u>             |
| Total                   | 100.0%<br><u>(36.9)</u> |
| Total depreciative acts | 100.0%                  |

(Source: R. N. Clark)

\*Depreciative acts in this study are classified as follows:

Nuisance acts reflected behavior essentially a bother or annoyance to other campers which might or might not violate campground rules or other legal restrictions. Examples are excessive noise, violations of privacy (such as unsupervised children running through other parties' camps), and intentionally freeing pets to roam the campground.

Vandalistic acts included deliberate, destructive or defacing acts committed against private property, campground facilities, or the surrounding environment.

Legal violations were acts which violated campground rules, traffic regulations, and local or state laws.

In another observation, as depicted in Table 18-2, it was apparent that most depreciative acts were associated with entertainment activities (38.7 percent), camp chores (20.7 percent), and moving through the camping area (20.7 percent).

Thus, these acts were the result of disregard or ignorance of the (depreciative) act itself as revealed by Table 18-3. Motivations of "convenience," such as cutting a nearby sappling tree for firewood rather than walking or driving to an appropriate source, appear to be of a lesser incidence.

These relationships suggest that criminal deliberateness is not a predominant motive of such behavior and that a means of improved education could have significant impact in reducing the problems.

The study further found that more than 80 percent of the depreciative acts occurred in the vicinity of bystanders as displayed in Table 18-4. However, this table also reveals that 70 percent of the bystanders appeared to have no reaction. This would further support the implication that improved education and understanding of recreation area purposes and rules would establish a better peer consciousness as a deterrent to depreciative acts in front of others.

These observations suggest that increased assistance and surveillance, such as by Corps rangers, would; 1) enable greater instructive control; 2) warnings from a ranger would likely have beneficial results; and, 3) the requirement to exercise citation or arrest authority for

TABLE 18-2

## Percent of Associated Activity when Depreciative

| <u>Depreciative Act</u>    | <u>Acts were Committed</u> |                        |                         |                                     |                                    | <u>Total</u> |
|----------------------------|----------------------------|------------------------|-------------------------|-------------------------------------|------------------------------------|--------------|
|                            | <u>Enter-<br/>tainment</u> | <u>Camp<br/>Chores</u> | <u>Nature<br/>Study</u> | <u>Social<br/>Inter-<br/>action</u> | <u>Moving<br/>through<br/>Camp</u> |              |
| Nuisance acts              | 52.3                       | 4.5                    | 4.5                     | 20.7                                | 18.0                               | 100.0%       |
| Vandalism                  | 39.3                       | 25.0                   | 35.7                    | 0                                   | 0                                  | 100.0%       |
| Law violations             | 27.3                       | 33.3                   | 1.5                     | 10.6                                | 27.3                               | 100.0%       |
| Total depreciative<br>acts | 38.7                       | 20.7                   | 6.3                     | 13.7                                | 20.7                               | 100.1%       |

(Source: R. N. Clark)

TABLE 18-3

## Apparent Motivation for Depreciative Acts

| <u>Depreciative Act</u>    | <u>Enter-<br/>tainment</u> | <u>Con-<br/>venience</u> | <u>Dis-<br/>regard</u> | <u>Ignorance</u> | <u>Rules<br/>Interfere<br/>With Goal</u> | <u>Total</u> |
|----------------------------|----------------------------|--------------------------|------------------------|------------------|------------------------------------------|--------------|
|                            |                            |                          |                        |                  |                                          |              |
| Nuisance acts              | 16.0                       | 5.0                      | 14.3                   | 64.7             | 0                                        | 100.0%       |
| Vandalism                  | 32.3                       | 6.5                      | 45.2                   | 16.1             | 0                                        | 100.1%       |
| Law violations             | 16.7                       | 10.0                     | 47.5                   | 6.7              | 19.2                                     | 100.1%       |
| Total depreciative<br>acts | 17.9                       | 7.3                      | 33.3                   | 33.3             | 8.4                                      | 100.2%       |

(Source: R. N. Clark)

TABLE 18-4

## Percent Reaction of Bystanders to Depreciative Acts

| <u>Depreciative Act</u>    | <u>No One<br/>Around</u> | <u>Approved<br/>of Act</u> | <u>No<br/>Reaction</u> | <u>Ignored<br/>Act</u> | <u>Commented<br/>to Others</u> | <u>Notified<br/>Ranger<br/>Later</u> | <u>Notified<br/>Ranger<br/>Immediately</u> | <u>Confronted<br/>Offender</u> | <u>Total</u> |
|----------------------------|--------------------------|----------------------------|------------------------|------------------------|--------------------------------|--------------------------------------|--------------------------------------------|--------------------------------|--------------|
| Nuisance acts              | 9.1                      | 0.5                        | 78.7                   | 2.5                    | 4.6                            | 0.5                                  | 0.0                                        | 4.1                            | 100.0%       |
| Vandalism                  | 52.9                     | 0                          | 44.1                   | 0                      | 0                              | 0                                    | 2.9                                        | 0                              | 99.9%        |
| Law violations             | 17.9                     | 1.4                        | 65.7                   | 4.3                    | 8.6                            | .7                                   | .7                                         | .7                             | 100.0%       |
| Total depreciative<br>acts | 17.1                     | .8                         | 70.1                   | 2.9                    | 5.6                            | .5                                   | .5                                         | 2.4                            | 99.9%        |

(Source: R. N. Clark)

malicious or serious acts would be used as a last resort. Further evidence for this conclusion is found in the PRC/PMS survey finding that over 90 percent of the verbal warnings to recreation visitors by rangers for the purpose of correcting their behavior received cooperative reactions (Table II.N. of findings volume).

Such conclusions based on a single campground study (with simple observation techniques) offer little more than a working hypothesis for continued inquiry. The tentative conclusions clearly suggest, however, an optimistic outlook for designing better visitor protection and law enforcement measures for Corps recreation areas with improved understanding of depreciative behavior and its impact on others and the environment.

Another study involves the concept of "defensible space" as coined by Oscar Newman. His definition of the term is as follows:

"Defensivle space is a surrogate term for a range of mechanisms--real and symbolic barriers, strongly defined areas of influence, improved opportunities for surveillance, that combine to bring an environment under control of its residents."<sup>6</sup>

A study of defensible space in urban setting was based upon the proposition that areas can be created for which people will adopt concern for security, and if design methods were sufficiently sensitive, "it would be possible to predict and control a wide range of behavior and social relationships through provision of particular architectural settings."<sup>7</sup> Areas, such as parks or recreation facilities, can be designed to indicate a particular use or group of people associated with a certain norm of behavior. Antisocial behavior is thus inhibited by "creating the physical expression of a social fabric (cohesiveness) that defends itself."<sup>8</sup> Malicious intent is deterred where space controlled by users is perceived.

One implication of this theory is that recreation areas at Corps lakes could be better designed to focus or cluster common activities in common spaces. Landscaping could be used to identify activity

spaces, while at the same time provide adequate views and access for security purposes. The similarity of recreation purpose would give a certain amount of homogeneity to users, and establish a normative behavior pattern. A subtle, but effective peer consciousness could develop which would provide a deterrent to antisocial behavior.

For those who wish or desire to recreate in the security of others, the design principle of clustering may be useful. In such clustering, visibility is an important desire of self-surveillance and detection. Even in using the defensible space theory, the support of protection assistance of a ranger or law enforcement officer is necessary.

Alternately, other visitors may desire solitude in their own or isolated space. Flexibility and variety in design of recreation areas will be needed to accommodate individual pursuits of leisure and to provide overall protection and law enforcement.

While Newman's notion of defensible space is aimed at urban environments, the basic concepts of this theory are clearly applicable to the design of Corps recreation areas, including:

- Elimination of multiple access roads;
- Lighting of developed areas;
- Control points to limit access to a developed area once maximum capacity is reached;
- Increase visibility of use areas to facilitate observation by police patrols (e.g., elimination of unnecessary shrubbery);
- Creation of "personal security" areas wherein territorial space is delimited and where barriers, real or symbolic, are utilized;
- Creation of special use areas (e.g., for mini-bikes, off-road vehicles);
- Well planned and controllable traffic patterns;
- Elimination of hazard areas;



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- Utilization of design concepts to maximize group cohesion and social controls;
- "Vandal proofing" of project facilities;
- Provision of emergency communications systems.

Some of these design considerations are discussed further in following sections of this chapter.

#### Education and Involvement

An education program oriented towards visitors and local communities is also a valuable component of a comprehensive outdoor recreation program.

Visitor education should receive much more focus than it currently does. The mere posting of Title 36 probably has little impact on users. In fact, all that it seems to do is enable management to enforce the rules. A more positive approach, one more clearly based upon good communication principles, would not be difficult or expensive to develop. Most of the necessary work could be done by a small group of skilled professionals, and supplied with the appropriate information, materials could be custom made for each facility.

If visitors are cognizant of the rules and perceive their necessity and understand that management clearly knows how they (management) want things run, the majority of visitors will be accommodating. It would seem modest investments in this area would be very cost-effective.

A vast amount of vandalism and other sorts of disturbances originate within the local communities. This points the way not only to user education but community education as well. The existence or non-existence of community education programs seems to rest much more on attitudes of the District Engineer or lake manager than upon costs of the program (which are minimal).

The District Engineer of the Rock Island District stated in an interview:

"Conduct of people on Corps lands and lakes such as Red Rock is strongly influenced by local public opinion, customs, traditions, and standards. The real deterrent is the community itself. I would point out that the Red Rock Lake Association exerts a positive and restraining influence upon the conduct of visitors to the lake who are from the surrounding and adjacent areas."

Channels of education and communication with local communities also result in useful feedback to guiding planning and management to be more responsive to local interests. For example, the U.S. Soil Conservation Service has maintained a successful community education program over the years. The manager of Lake Wright Patman is involved in community activities, speaks to civic organizations, clubs and schools in Texarkana, and maintains a good working relationship with the county sheriff and city police. The Corps lake manager in this case maintains a personal involvement with the local community with beneficial results. The establishment of a recreation area advisory committee of local citizens to work with lake managers or District Engineer is another approach.

#### D. Use of Operation and Maintenance as a Deterrent

There are a number of ways in which improved operation and maintenance of Corps recreation areas may serve to deter antisocial behavior such as littering and vandalism and reduce costs. Cost reductions can be achieved either by reducing O&M costs alone, or by reducing longer range combined capital and O&M investment. Some of the possibilities are described in the following section.

##### Keeping O&M Current

Many park and recreation administrators believe maintaining clean and neat areas serves as a deterrent to littering and well-designed facilities--esthetically and functionally--deter vandalism. This intangible relationship has not been studied enough to significantly verify a direct correlation, however, many reservoir managers and

park rangers as well as local park administrators in this study have observed this relationship to be the case in their areas. They reported that when their picnic areas and roadsides were clean, there was often minimal litter thrown about, but when litter did begin to appear, it accumulated rapidly. Obviously, people would tend to throw waste materials about where it appeared to make little difference. Conversely, as litter would be more conspicuous if the area were clean, often a second throw would divert the empty soda can to the trash receptacle.

The effects of vandalism also seems to encourage more vandalism. Some park managers firmly believe that attractively designed and well maintained facilities, such as restroom and shower facilities, are less harshly treated than austere, or even "ugly" buildings serving the same purpose. Additionally, quick repair of vandalized facilities appears to be related to minimal vandalism. If a light in a parking lot is left broken, it seems more inviting to break more.

#### Increasing the Use of Portable Facilities

This approach involves the investment of O&M in portable facilities (e.g. restrooms) which are removed when not in use. The Houston park administrators have found this approach to have considerable advantages over the increasing costs and questionable effectiveness of "vandal-proofing" these facilities.

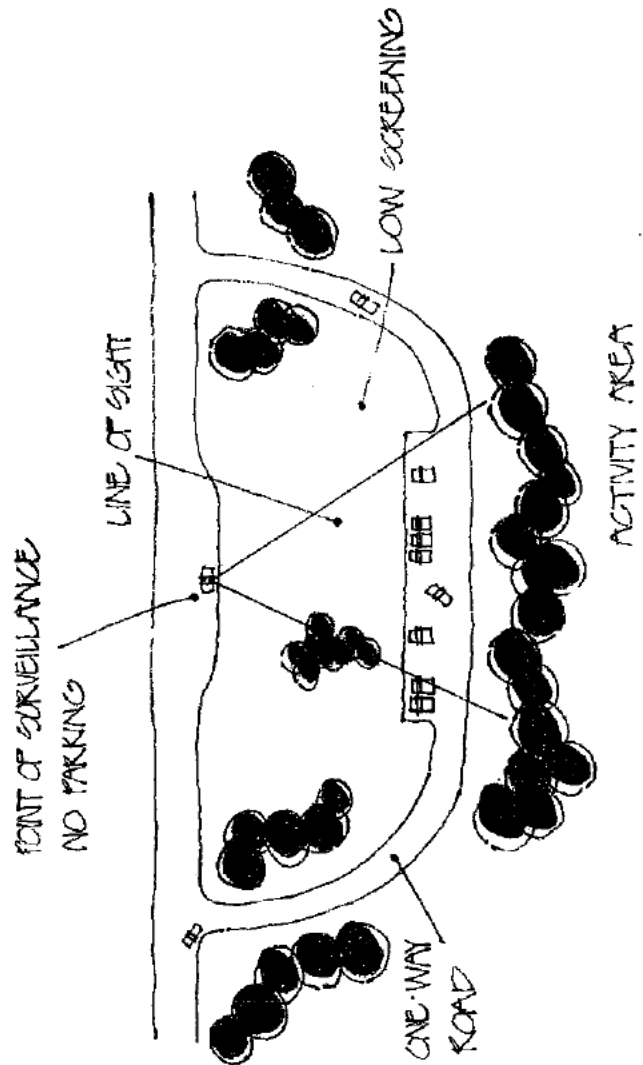
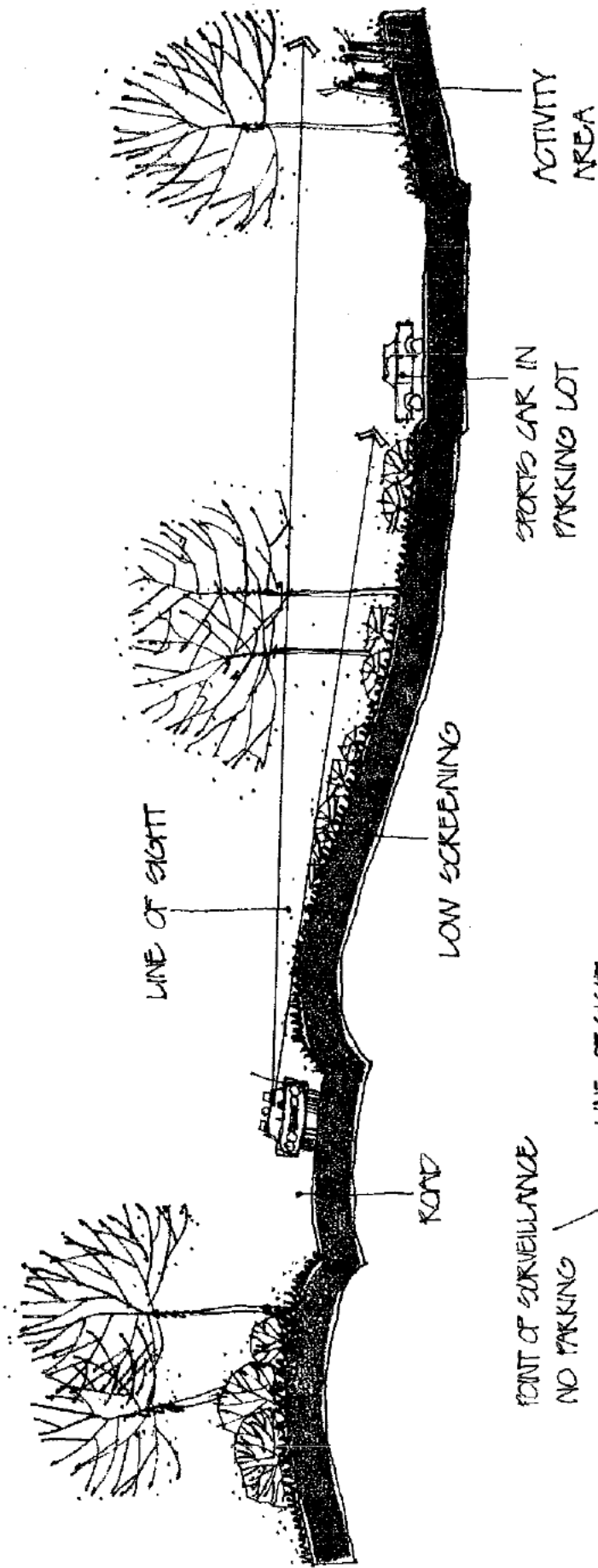
#### Practicing Selective Landscape Clearing

Careful landscape trimming is important in maintaining views for surveillance from patrol cars, while, at the same time, maintaining selected undergrowth vegetation and trees, as shown in Sketch 1. Such trimming will, in most instances, require two people--one positioned from a surveillance viewpoint, and the other trimming at his direction. Considerable sensitivity for the landscape and an understanding of efficient surveillance perspectives is an important requisite for guiding this kind of maintenance trimming.

# SELECTIVE LANDSCAPE CLEARING FOR SURVEILLANCE

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1



#### Improving O&M Cost Accounting

Improved cost accounting for O&M expenditures is needed in order to establish effectiveness measurements of litter, vandalism and other visitor protection related O&M costs.

#### Controlling Water-Borne Facilities

The growing number of large cabin cruisers and self-propelled houseboats (including some in the form of trailer homes mounted on pontoons) is an emerging problem which should be carefully monitored. This new type of equipment should be: (1) used for intermittent recreational purposes rather than permanent habitation; (2) controlled with respect to water pollution; (3) prevented from usurping an undue amount of space in concession areas and interfering with services to smaller craft; and, (4) prevented from evolving into the equivalent of "floating villages."

#### Instituting Modern O&M Practices

This involves keeping up-to-date in planning and designing for effective O&M. There are many advanced developments in litter cleanup equipment such as vacuum pick-up equipment or vandal-proof facilities that could be used at Corps recreation areas. It was observed during the study that the latest in techniques or technology for park maintenance were seldom reflected in the design of areas or in O&M operations.

#### Other Measures

Other O&M measures which would facilitate improved visitor and resource protection include the following:

- Expansion of authority to require concessions and private facilities such as cottages, homes, clubs, boathouses and docks to maintain adequate maintenance, safety standards, and equipment. Permits for rundown, abandoned or otherwise poorly maintained facilities should be revoked if not corrected within a reasonable time, and removed by the Corps. Illegal encroachments should also be subject to direct Title 36 enforcement.
- Employment of retired couples to live in strategically placed cottages or trailers (temporarily only) to provide surveillance and visitor assistance.

- Including the enforcement of sanitation and public health regulations under the provisions of Title 36.

#### E. Visitor Communication

Communication, if used properly, is a very effective tool. However, in a recreation setting, communication is quite a complex matter involving, (1) communicating to the visitor the purpose of the recreation area and the regulations for its use; (2) communicating to the law enforcement officers the need for visitor protection and assistance; and, (3) coordinating the variety of communication means, such as personal contact, signs, and lights.

Some of the communication difficulties apparent from the field surveys of the Corps lakes were that few Corps areas had attendant gate accesses to provide instructions and information; few had an adequate number of visitor areas where emergency assistance could be summoned; a ranger's flashlight peering in a campground at night cannot be differentiated from a "prowler;" too many signs detract from the esthetics of the landscape; and not all Corps mobile radios had connecting frequency channels with local or state law enforcement.

Often the overall needs for communication are inadequately assessed when expediency is principally involved in selecting and purchasing radio equipment for project headquarters and patrol cars. Such equipment is important, however, there is also need to take a close look at developing improved means of visitor communication within the milieu of the recreation area environment. Unfortunately, this problem cannot be solved by purchasing traditional pieces of equipment. More study will need to be given to this problem in visitor protection and recreation planning.

The process of communication is closely interwoven with the information to be transferred, the method of communication, and the environment within which the communication takes place. When a visitor enters a Corps recreation area, the visitor should have an understanding of the



purpose of the area, rules for its use, the location and kinds of recreation facilities available, and how to get assistance if needed.

There appeared to be a wide range of approaches to visitor information at Corps lakes, ranging from an elaborate new visitor center at project headquarters at J. Percy Priest Lake at Nashville, to virtually no information available at some of the other lakes.

Effective communication of information could improve visitor conduct through the education and values that are also gained by visitors. The personal orientation also enables a fuller pursuit of recreation experience and an improved sense of security by knowing assistance is available if needed.

Some examples of communication processes that would improve both the quality of recreation experience and enforcement of rules and regulations are described below.

### Signs

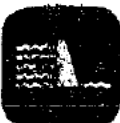
Signs are perhaps the most common technique used to communicate information. At the same time, however, the increasing number of signs needed to communicate information has become an environmental problem. There are ways by which signs could be improved:

- Use of symbols to communicate, such as the U.S. Department of Interior's symbol system partially shown in Figure 18-A.
- Providing paved pull-overs to allow visitors to read information signs without blocking traffic. An example would be to locate large informational signs before the entrance gate as shown in Sketch 2.
- Careful consideration must be given to sign language so regulations and other information is displayed briefly and succinctly. Substitute symbols wherever possible for rule and direction statements.
- Painting signs on pavement, such as speed limits, whenever possible to eliminate a sign post.

FIGURE 18-A

## Proposed Symbol Signs for Public Use and Recreation

## GENERAL

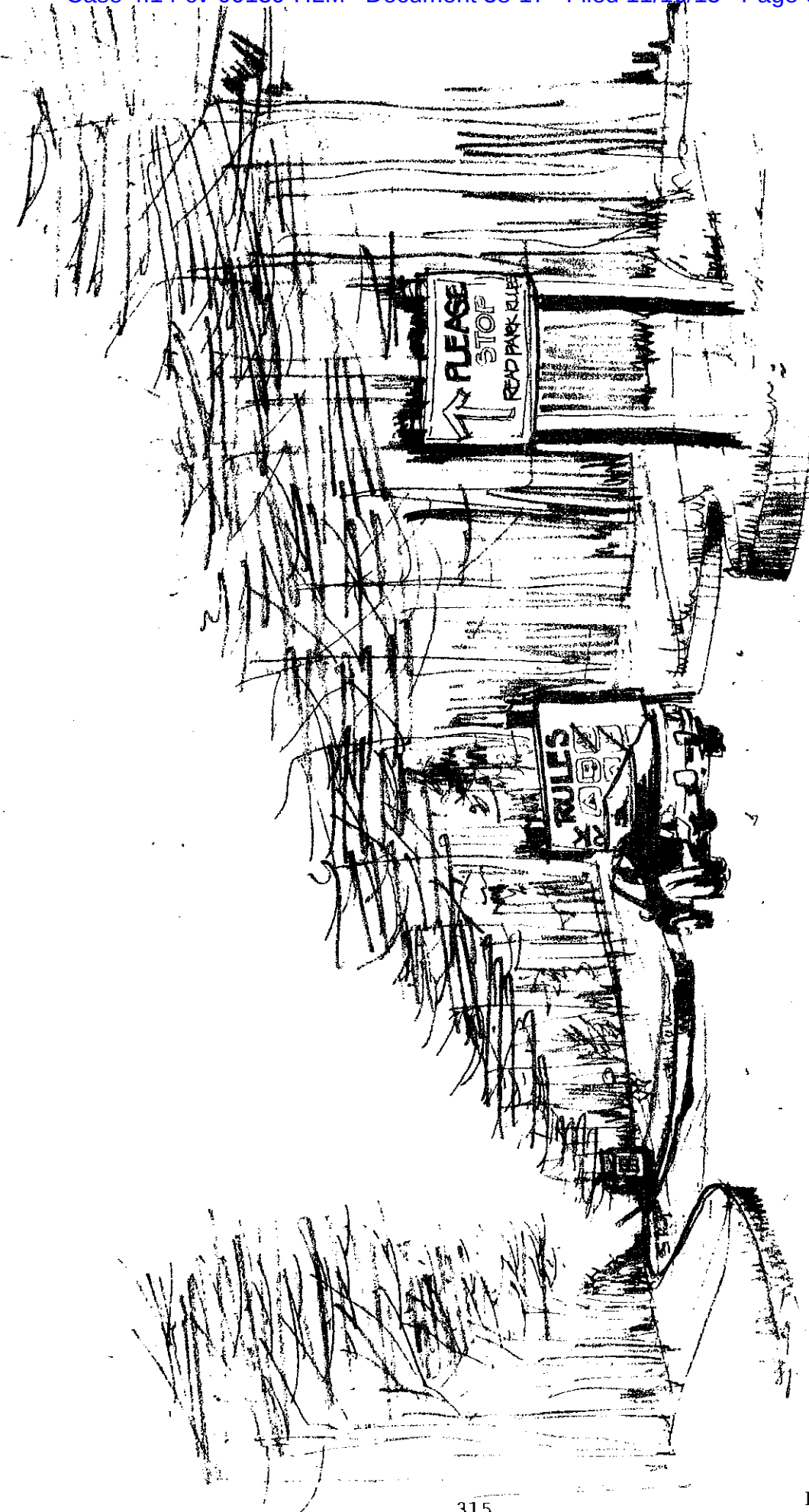
|                                                                                     |                                                       |                                                                                     |                                                                |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|
|    | Area Where Firearms are Permitted                     |    | Location of a Dam                                              |
|    | Area Where Smoking is Permitted                       |    | Area Where Bears are Frequent and Might be Viewed by Visitors  |
|    | Roadway or Other Facility Where Automobiles Permitted |    | Drinking Water                                                 |
|    | Roadway Where Trucks Permitted                        |    | Fish Hatchery                                                  |
|   | Tunnel                                                |   | Area Where Deer are Frequent and Might be Viewed by Visitors   |
|  | An Observation, Look-out or Fire Tower                |  | Visitor Information                                            |
|  | A Light House                                         |  | Ranger Station or Administrative Office                        |
|  | Area of Falling Rocks                                 |  | Road Crossing Permitted                                        |
|  | Area Where Pets Under Physical Control Permitted.     |  | Environmental Study Area or Special Environmental Program Area |

Source: Federal Register, Vol. 38, No. 220, pp. 31511-31515.

2

FMS ADIDA EGA 1974

PROVIDE PULL OVERS FOR MAJOR INFORMATION  
AND REGULATION SIGNS



- Coordinating signs for direction and location with the brochure map. Using guide reference markers on selected signs and placing north arrows on the road or under location reference signs allows visitors to coordinate the sign and map locations.

#### Telephones

If possible, a telephone should be provided within walking distance of a developed day use area or campground. One telephone per developed recreation area should be a minimum for emergency call purposes. As stated previously, reluctance of telephone companies to extend lines to a distant recreation area could be overcome by the Corps subsidizing the marginal costs required to meet phone company expenses. The telephone system should be contained in a vandal resistant box, and not require a coin deposit to call the operator or the standard 911 emergency number if it has been implemented. The design of an esthetically pleasing telephone booth system to coordinate with the outdoor landscape would be desirable. However, the telephone booths should be located adjacent to roads, in clear view, rather than within a closely landscaped situation.

#### Brochures

Brochures can provide a useful reference guide to the Corps recreation area. Review of many Corps brochures revealed the need to improve orientation between map and ground locations. Reference points throughout a project area should be established and graphically coordinated with the map brochure. Locations of telephones and other sources of emergency assistance should be clearly represented on the maps. Rules and regulations of recreation area use should be included in the brochure. A distilled version of Title 36, including substitution of symbols where possible, should be developed for brochure use.

#### Automobile Radio Broadcasts

The transmitting of recorded information over a localized automobile radio frequency within recreation areas is another communication technique that was used successfully, such as at Yellowstone National

Park. Emergency assistance information could be interspersed with dialogues on project history, natural environment and recreation activities. Explanation of recreation area values and rules could also be tactfully interjected.

#### Interpretative Talks

Interpretative talks by rangers are considered a very useful means of educating visitors on the values of outdoor resources and their prudent use. Some interpretative talks occur at Corps recreation areas, but for the most part, there is little time provided in the ranger's duty hours to develop good interpretative programs. The establishment of more visitor oriented programs, particularly those with increased visitor involvement (as distinguished from resource management-oriented programs) could have a significant impact on reducing visitor disturbances and nuisance of project resources.

From the law enforcement and visitor protection standpoint, communication must be effective, accurate, and swift. The use of up-to-date communications techniques and technologies can both add to the enjoyment of the recreation visitor as well as increase the level of security. The state of the art in graphic design, electronic communication technology, and understanding the behavioral responses to perceived information is quite far advanced over that presently implemented at Corps lakes. Further inquiry into the behavioral responses to improved information, education and communication at Corps recreation areas would likely reveal many areas where the quality of recreation experience could be easily enhanced.

#### F. Use Fee Areas

The study found the incidence of crime or disturbances was lower in campgrounds where fees were collected. Litter and vandalism was also lower in fee areas. Corps rangers and managers stated the reasons for this was the fact that a uniformed attendant was usually present at the access, or came around to the campsite in the evening to collect the

fee. This provided a sense of security, for which people are willing to pay. This finding also agreed with a previous study mentioned earlier.<sup>9</sup>

While the question arises regarding double-taxing, that is, whether public funds should pay for O&M as well as for the cost of the land, water development and special recreation facilities, it has been calculated that the fee charges required to support an effective visitor protection program would involve a very low per-capita visitor fee. Moreover, while fees are still a controversial issue, nevertheless, it appears that the public is accepting the notion of paying direct costs of special facilities and services used.

Visitors could also have a hypothetical choice of selecting a kind of recreation program supported with a use fee, or opt for the level of development and service (visitor protection) they now receive through the federal budget process.

The fee program at Corps lakes has been inconsistent over the past few years due to changes in federal legislation. It seems clear that in spite of the adverse reaction of people in certain areas of the country, the approach of fees to support the quantity and quality of recreation facilities and programs will need to be very carefully considered.

#### G. Access and Circulation

The following guidelines may be used to design access and circulation within a recreation area to improve visitor protection and law enforcement. These guidelines may be applied in conjunction with the normal planning and design objectives of providing safe, convenient, efficient and environmentally integrated roadways at recreation areas.

##### Single Access Points

Single access or entrance points to a recreation area offers the most effective control. Management functions such as attendance

counting, fee collection, distribution of information and rules literature, surveillance and establishing personal contact with visitors may be easily accomplished, as shown in Sketch 3. Attendants at an entry gate provide good public relations and establish a sense of security. It also renders a deterrent influence to antisocial intentions.

At areas where multiple access points exist, entrance could be restricted to one point with other accesses limited to exit traffic. This could be accomplished by using one-way traffic barriers such as drive-over fork gates, as shown in Sketch 4.

#### Traffic Control

Traffic control is one area of ranger duty that can utilize automatic control systems, and thereby enable the ranger to concentrate more on other activities. Speed control can be accomplished by automatic light or sound warning and photographing devices that activate upon sensing excessive speed. Other control and warning methods include speed bumps and pavement texture, as shown in Sketch 5.

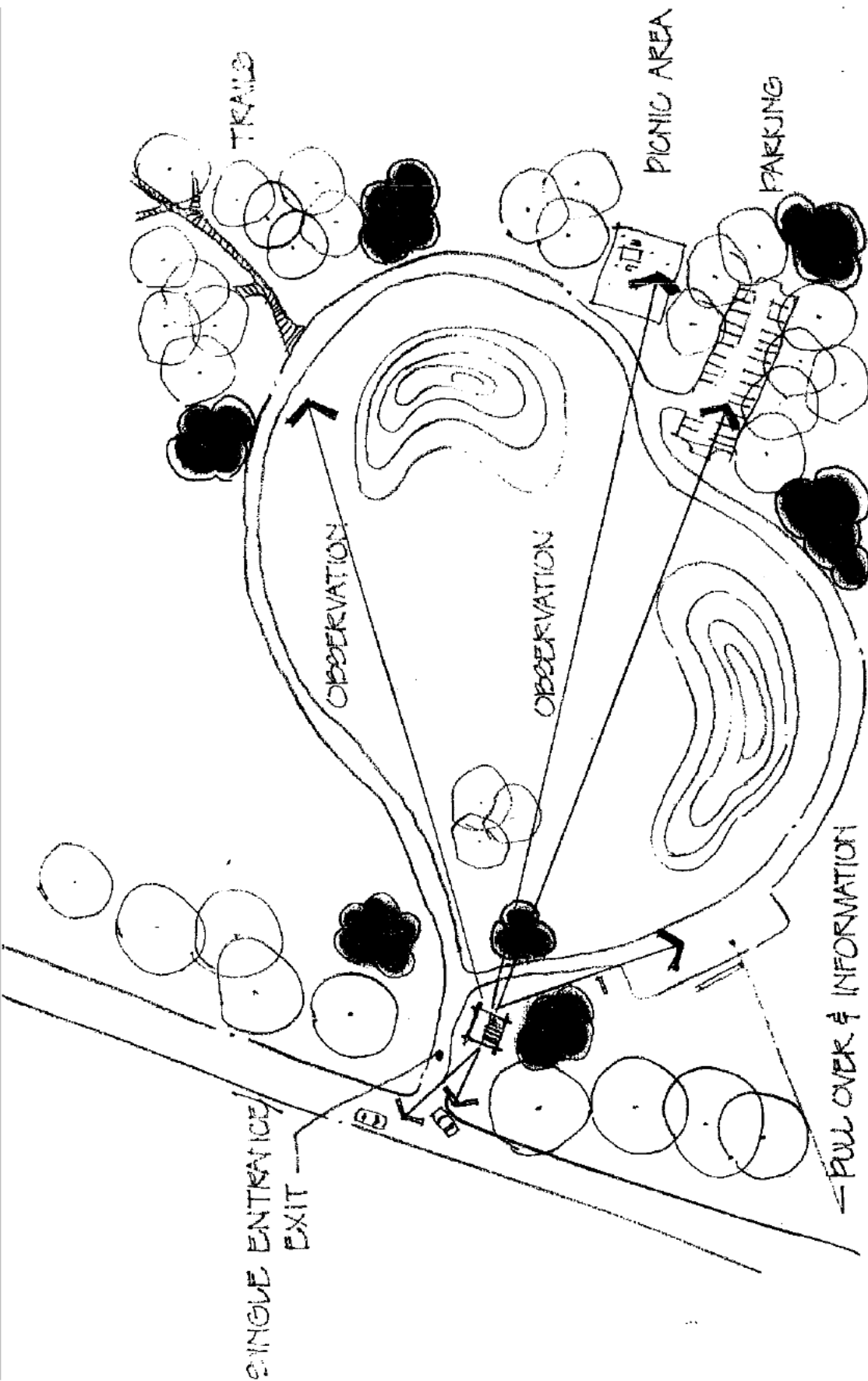
Painting lines or placing roadside markers at predetermined intervals to measure speed has been used successfully by some Corps rangers. Painting speed limit numbers on road pavement can eliminate another sign from the roadside environment.

#### Road Shoulders, Pullovers, and Turn-arounds

Roadside space can be provided at planned intervals to allow visitors to pull over to read information signs and to enable ranger patrol to pause for surveillance views. Many of the roads in Corps recreation areas do not have adequate shoulders for such use. Important information signs should have paved pullovers, as previously shown in Sketch 2.

No parking should be allowed in these off-road areas. Painted lines along road pavement denoting no parking is preferable to adding more signs to the roadside environment.

3

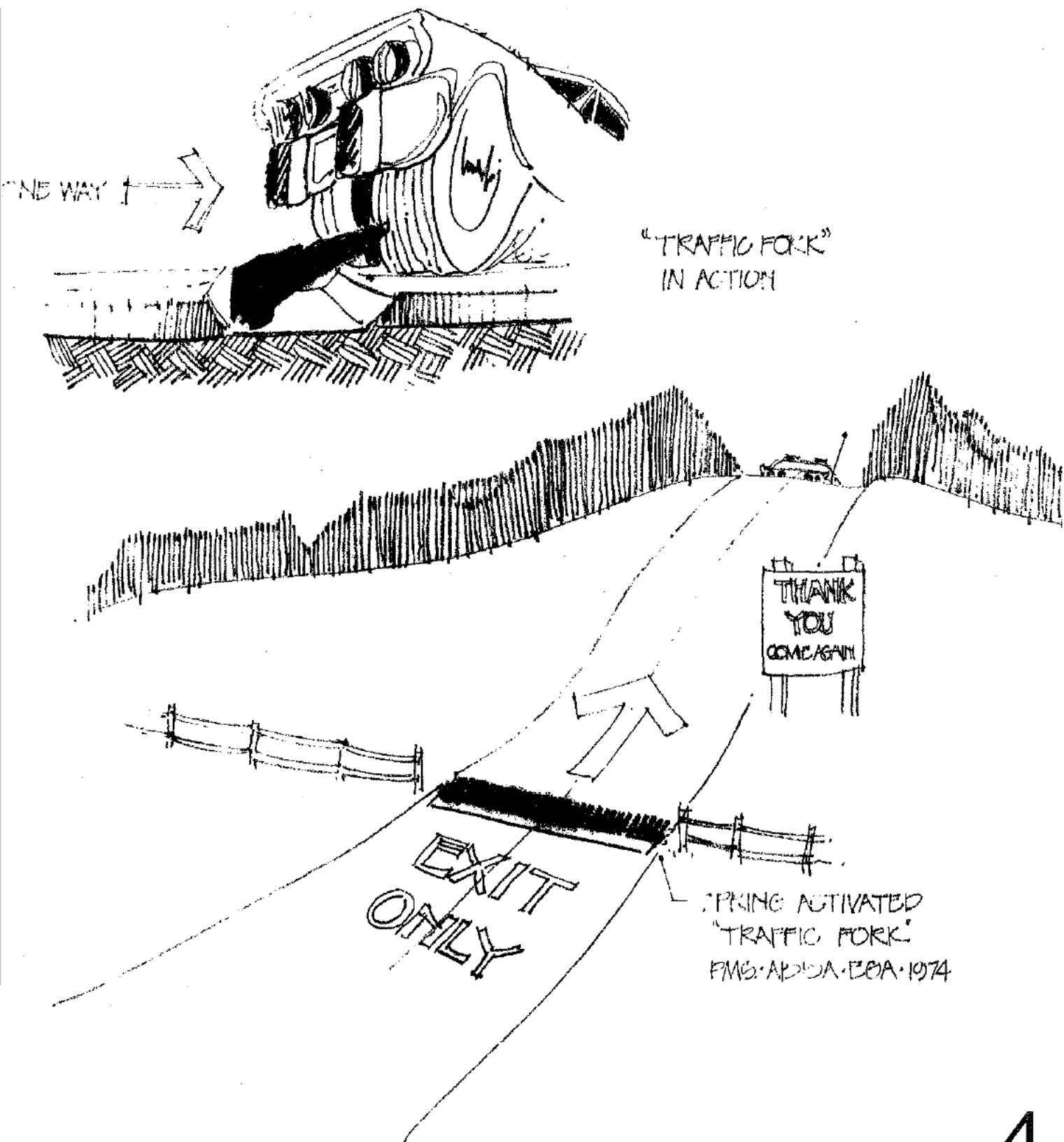


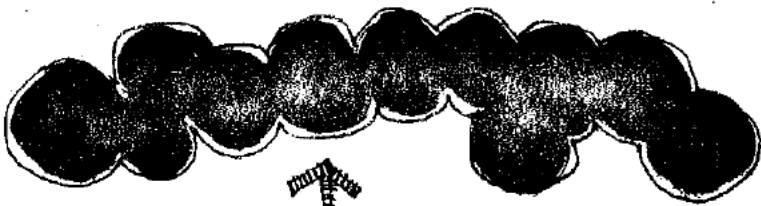
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SINGLE ACCESS POINTS PROVIDE EFFECTIVE CONTROL

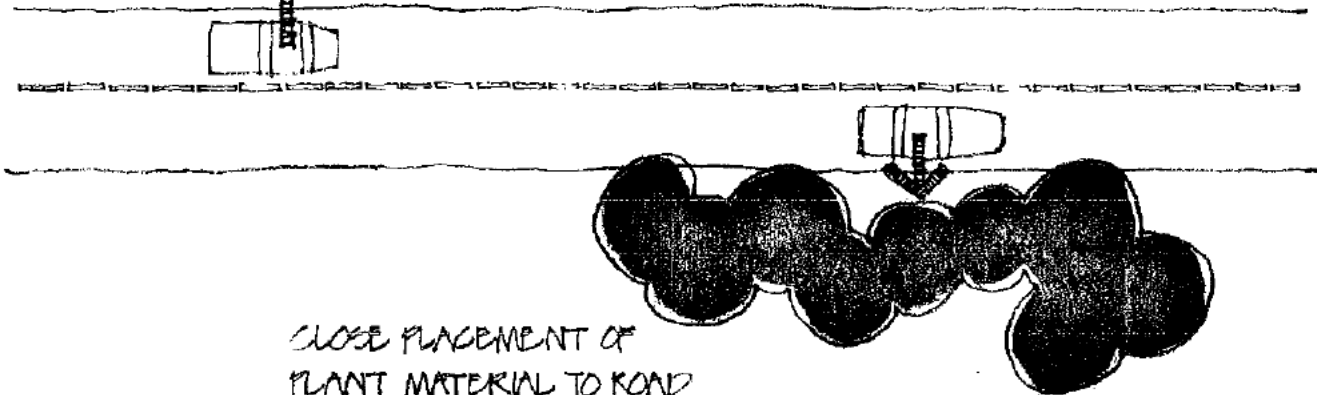


# ONE WAY TRAFFIC BARRIERS RESTRICT ENTRY TO DESIRED ACCESS POINTS





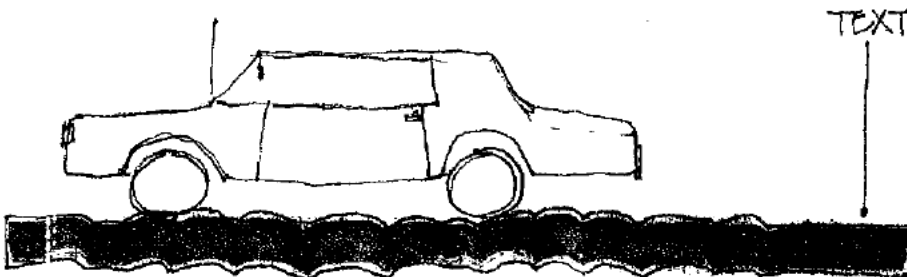
INCREASE DISTANCE OF PLANT MATERIAL  
FROM ROAD AND DRIVER'S SENSE OF  
SPEED DECREASES - TRAFFIC  
SPEEDS UP



CLOSE PLACEMENT OF  
PLANT MATERIAL TO ROAD  
INCREASES SENSE OF  
SPEED - TRAFFIC SLOWS DOWN

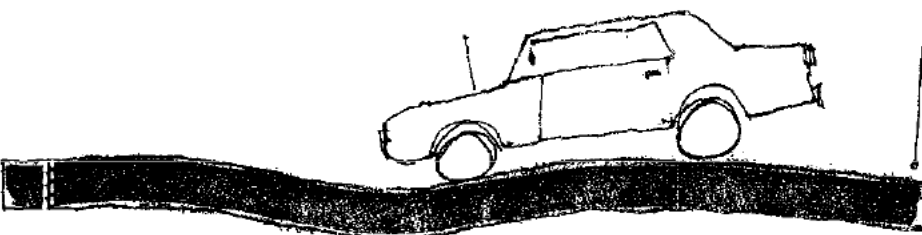
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## NATURAL SPEED CONTROLS



TEXTURED SURFACE

FAST SPEEDS PRODUCE DIFFICULTY IN STEERING AND DECREASE COMFORT



CONTOURED SURFACE

PMB-ABDA-EGA-1974

Space to enable safe turn around should be provided at intervals of not greater than one mile along narrow circulation roads.

#### Roadside Landscaping

Improved views for roadside patrol surveillance can be accomplished by selective trimming. Views can be opened into and through use areas (Sketch 6). The viewpoint itself may be narrow, perhaps only a few feet wide, but then opens to a broader vista. From the use area, the viewpoint may be unnoticeable, as shown in Sketch 7.

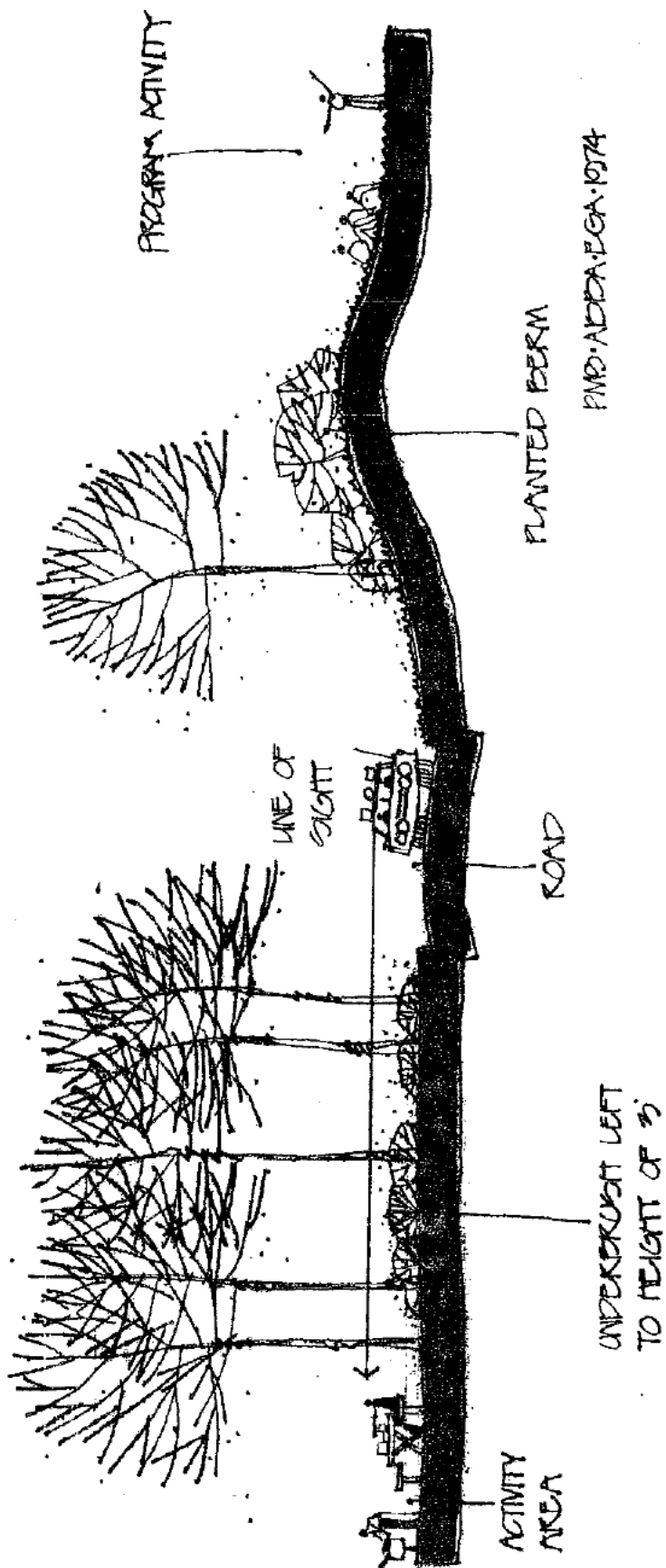
Such viewpoints provide the rangers or law enforcement officers with an option of viewing a use area from a distance, rather than going into the area demonstrating his visible presence. While occasionally seeing a ranger or officer gives visitors a sense of security and serves as a deterrent to disturbances, this must be sensitively balanced with overbearing presence. If not, the ranger or officers presence may then offend an individual or group's sense of privacy. A park ranger with extensive experience in dealing with visitors is normally able to sense how he or she is being received by visitors. There are times to be seen, and times not to be seen. Effective surveillance to ensure visitor protection thus requires good judgment in its practice.

#### Parking Lots

Many larcenies at Corps lakes are associated with parked automobiles. Parking areas can be developed in open view as much as possible as a deterrent to theft. View corridors between parking and use areas can be selectively cleared to enable visitors to locate their activity within visibility of their automobiles.

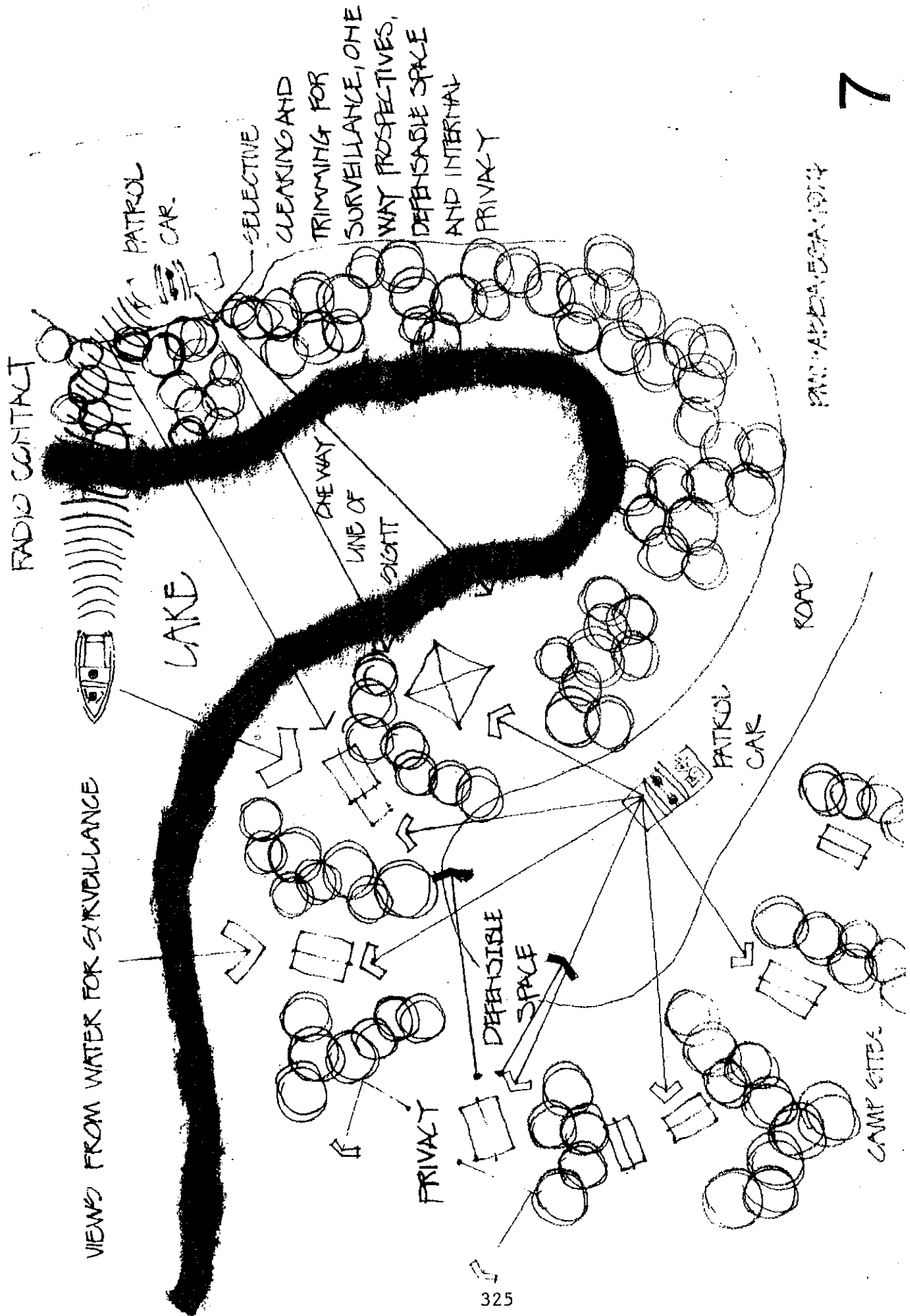
#### Trails

Trails are not normally a major recreation facility developed at Corps lakes, although at a few recreation areas there are good trail networks being developed. Emergency access, such as fire protection routes, often double as trails. Trails, where provided, do offer opportunity to extend visitor and resource protection into project lands



## SELECTIVE TRIMMING FOR SURVEILLANCE: VISUAL CORRIDORS

6



SELECTIVE TRIMMING FOR SURVEILLANCE :  
VISUAL CORRIDORS

7

beyond developed recreation areas. Use of appropriately powered and wheeled off-road vehicles (ORV's) or horses offer effective means of extending visitor protection along trails. ORV's may also be used for maintenance. Litter, vandalism, and fire hazards are often severe along trails because they are so seldom patrolled, and normally receive low priority on maintenance schedules. This is generally true for all agencies involved with trails, not just the Corps.

#### Patrol Units Appropriate to the Need

All rangers in the study were observed using patrol cars or pickup trucks (Sketch 8). While it is possible to park such vehicles and walk, other means of circulation may be used which may be more effective. Scooters and bicycles have been used effectively in urban park situations where close proximity to user populations is needed. Boat patrols also offer good views and access to activity areas (Sketch 9).

Mounted rangers and police officers have again become quite popular because of their good public relations image and usefulness in cross-country patrol.

There may be recreation areas and facilities, such as trails and hiker campsites, which are not suitable for automobile surveillance. Patrolling systems should be flexible to utilize the kinds of alternative transportation means available and appropriate to the use and environment.

#### H. Esthetics

It is axiomatic in the park and recreation field that good esthetic quality in design of facilities and landscapes is an important ingredient to a satisfying recreation experience. At the same time, however, very little effort has been made to perfect statistical correlations between esthetic parameters and recreation behavior.

Many of the municipal and regional park agency administrators interviewed indicated firm belief that good esthetic design in park areas



8



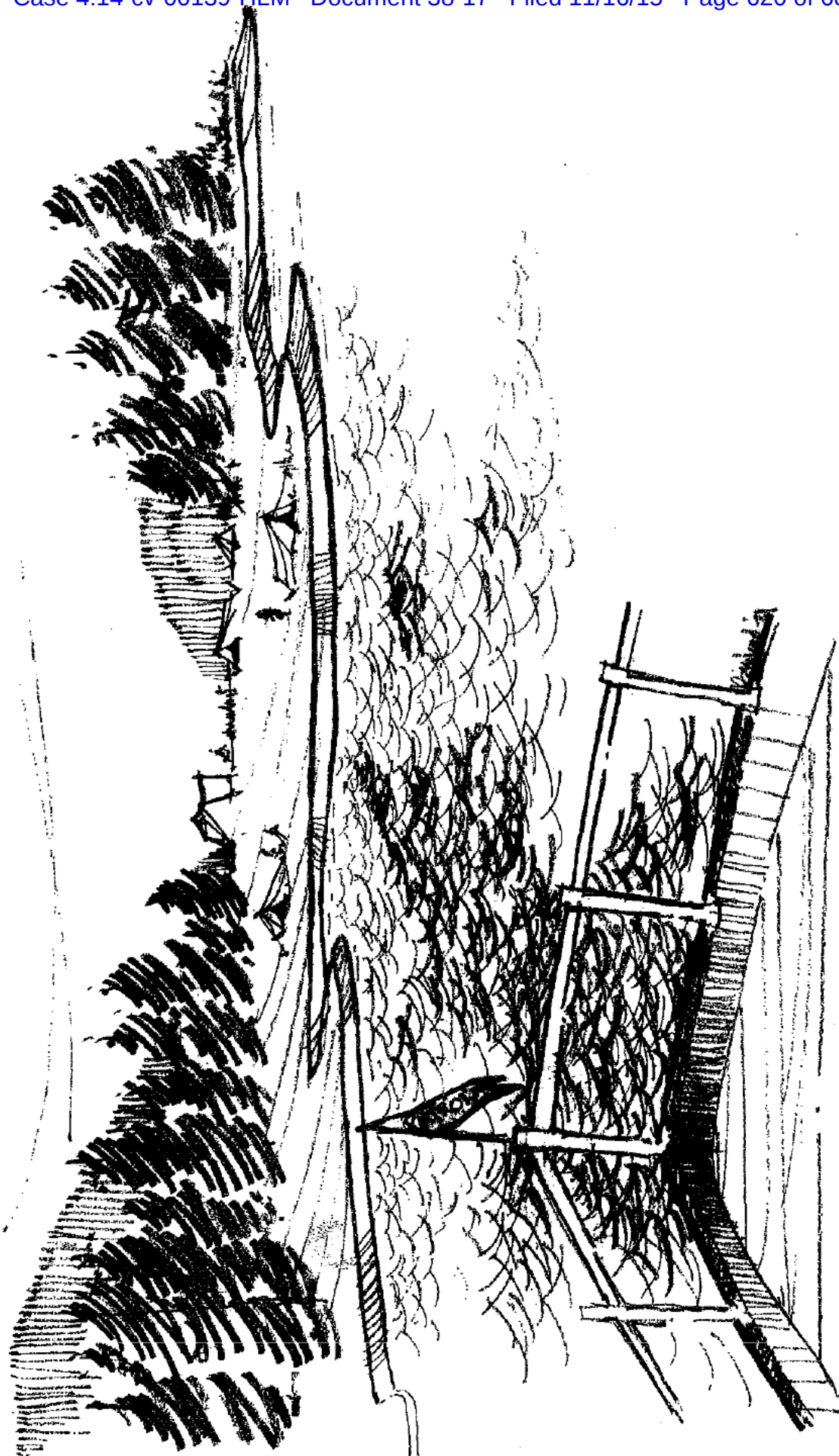
PMS: ABBDA: EGA: 1074

PATROL VIEW FROM AUTOMOBILE

9

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PATROL VIEW FROM WATERCRAFT





and facilities and clean maintenance did much to deter vandalism and littering. Corps park managers, on the other hand, tended to have less strong feelings about the role of esthetics in the design of their recreation areas.

While there is a regulation on esthetics within the Corps Engineering Regulations, it appears that there is still progress to be made in implementing esthetic policy and practice.

#### I. Environmental Protection

There are certain resource management practices that need the additional support of law enforcement for their implementation, where adequate protection is not now provided under Title 36 regulations, or spelled out in ER 1165-2-400. These pertain to usually unique situations where environmental conditions become temporarily sensitive or in jeopardy, or where there are certain types of environmental management standards that visitors appropriately should be obliged to reflect in their use or resources. The continuity of the management efforts directed at these areas often needs protection equal to, and the character of, regulations governing visitor use of the recreation area.

Some of the significant examples of environmental protection regulations are described in the following sections.

##### Restricting the Use of Trails and Other Areas When Wet

When soil conditions are particularly vulnerable to damage by use, such as when wet and soft after a rainfall, clearer authority is needed to restrict use of these areas until they are in suitable condition. It is standard practice to restrict use of golf courses while the ground is wet enough to be damaged by footprints. Similarly, trails often receive the most severe damage by foot, vehicular or horse traffic when wet. Additionally, restrictions should apply to areas where vegetation is being reestablished.

Restricting Access to Hazardous Areas

An example is restricting access to lakeshore beaches which are unstable due to erosion. This could also be assisted by controlling motorboat access to lessen impact of waves causing shoreline erosion and limiting intensity of use in areas where carrying capacity is clearly known.

Enforcing Air and Water Quality Standards

This would be especially helpful where visitor activities are in violation, such as in campfires, vehicle exhaust, or discharge of waterborne waste materials.

The study of law enforcement and visitor protection did not concentrate extensively on environmental problems, observations from field surveys and the literature review clearly varify again the need to implement the environmental management and protection measures prescribed in the Corps management report of 1969.<sup>10</sup> It would have been redundant to review the problems already analyzed in this report, which still remain, in large part, unfulfilled. This report should be a basic input into the design and implementation of a Corps of Engineers law enforcement program.

J. Landscaping and Architecture

Ease of surveillance and deterrence to crime and vandalism may be accomplished in planning and design of the recreation area landscape. The judicious and innovative use of plant materials, layout and siting and clearing can provide vistas and spatial relationships that facilitate visitor protection. In some parks, where increasing crime has become a problem, such as James McClatchy Park in Sacramento, the police influenced the clearing of all underbrush and trimming of lower tree branches six to ten feet above the ground. This allows clear views across park areas from patrol routes, but esthetically it is an unsatisfactory solution. Authorities at Central Park in New York City have resisted such pressure

to clear landscaping. Some general landscape practices to provide increased security and visitor protection are included in the following discussion, as well as practices specific to the control of littering, vandalism, improved visibility, and zoning.

#### General Landscape Practices

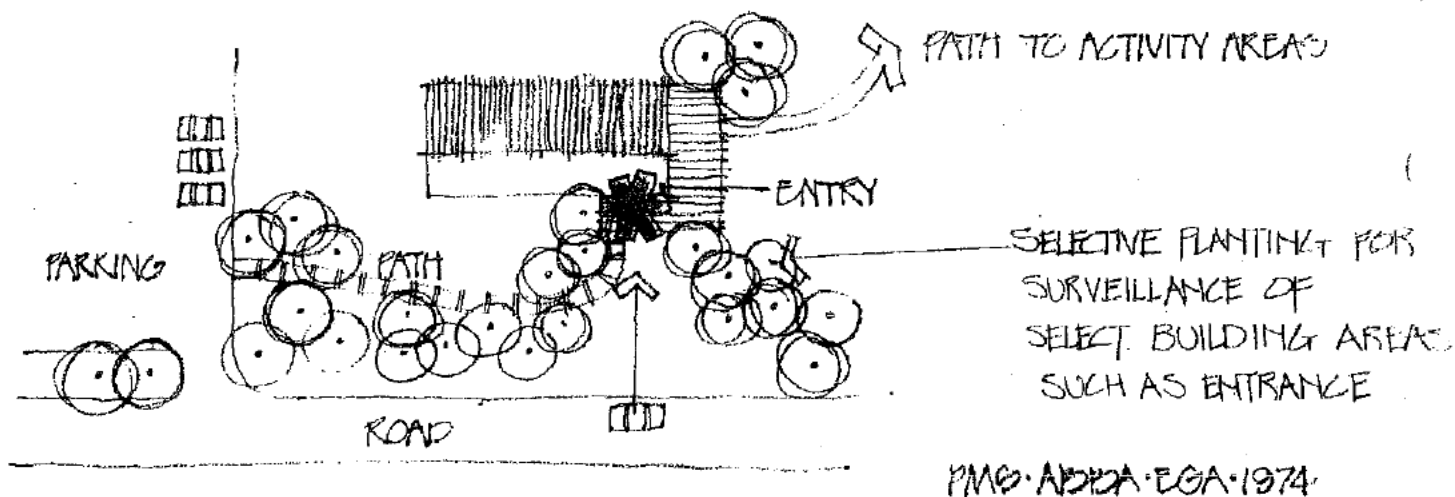
The following landscape practices are indicative of current techniques to improve visitor protection and security in general:

- Using thorny shrubs to provide buffer barriers around windows, equipment and other facilities where intruders are not wanted. Other plant materials require little trimming and insect protection, have good root systems to retard erosion, and require little O&M.
- Designing viewpoints and vistas to render an effect of one-way perspectives.
- Placing shrubs or trees to provide screens for privacy, shade, wind protection, or direct movement, and still enable security surveillance (Sketch 10).
- Thinning vegetation along walkways or trails so that other people may be seen, while landscape presence and texture is experienced.
- Designing the layout of an area to facilitate convenient maintenance practices, such as litter cleanup.
- Orienting doors and windows and the siting of buildings and other structures toward open access and views.

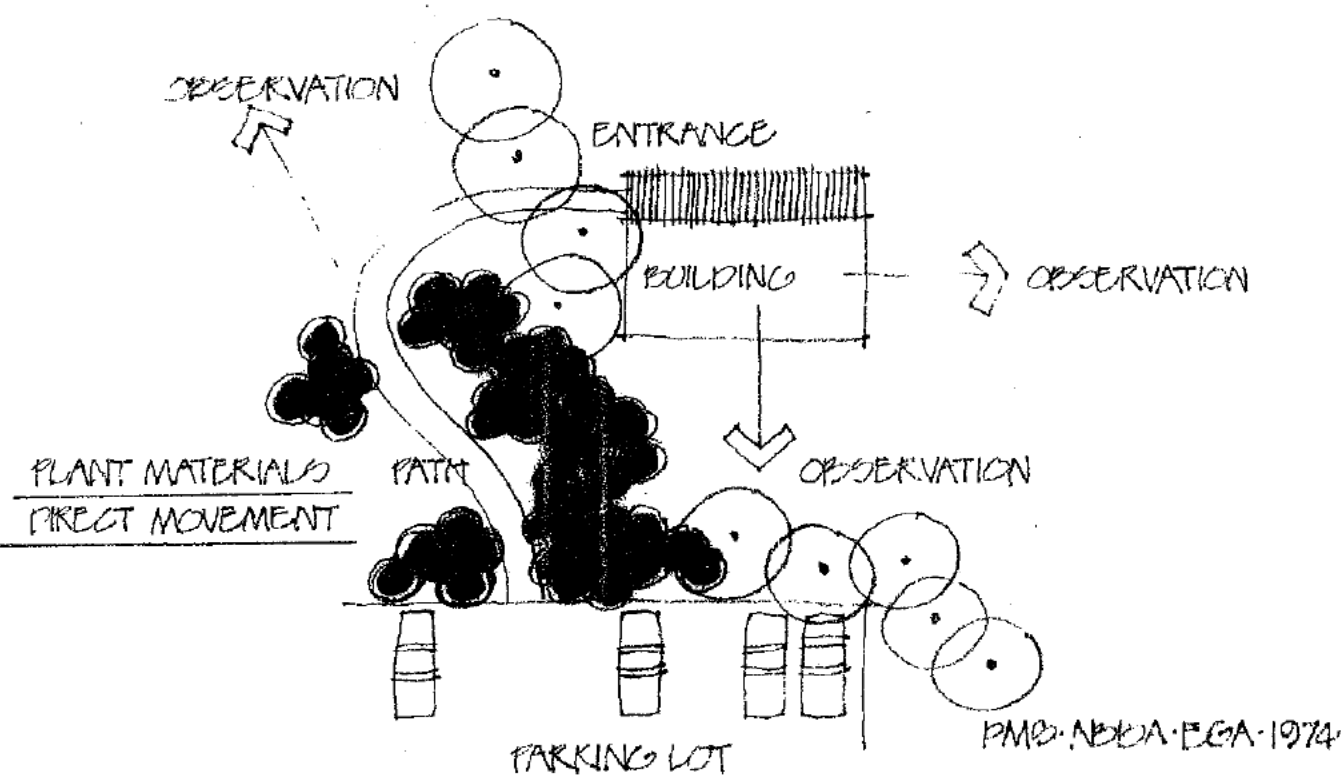
#### Controlling Litter

There are several effective landscape architectural approaches that can be used to control littering. The measures below reflect a few:

- Maintaining clean appearance. People appear more reluctant to disregard litter in a clean area where it will be conspicuous. Once litter starts, such as from overflowing trash receptacles, it tends to accumulate more rapidly.
- Picking up litter during use activity appears to be an educational deterrent.



## SELECTIVE VIEW OF ENTRANCE

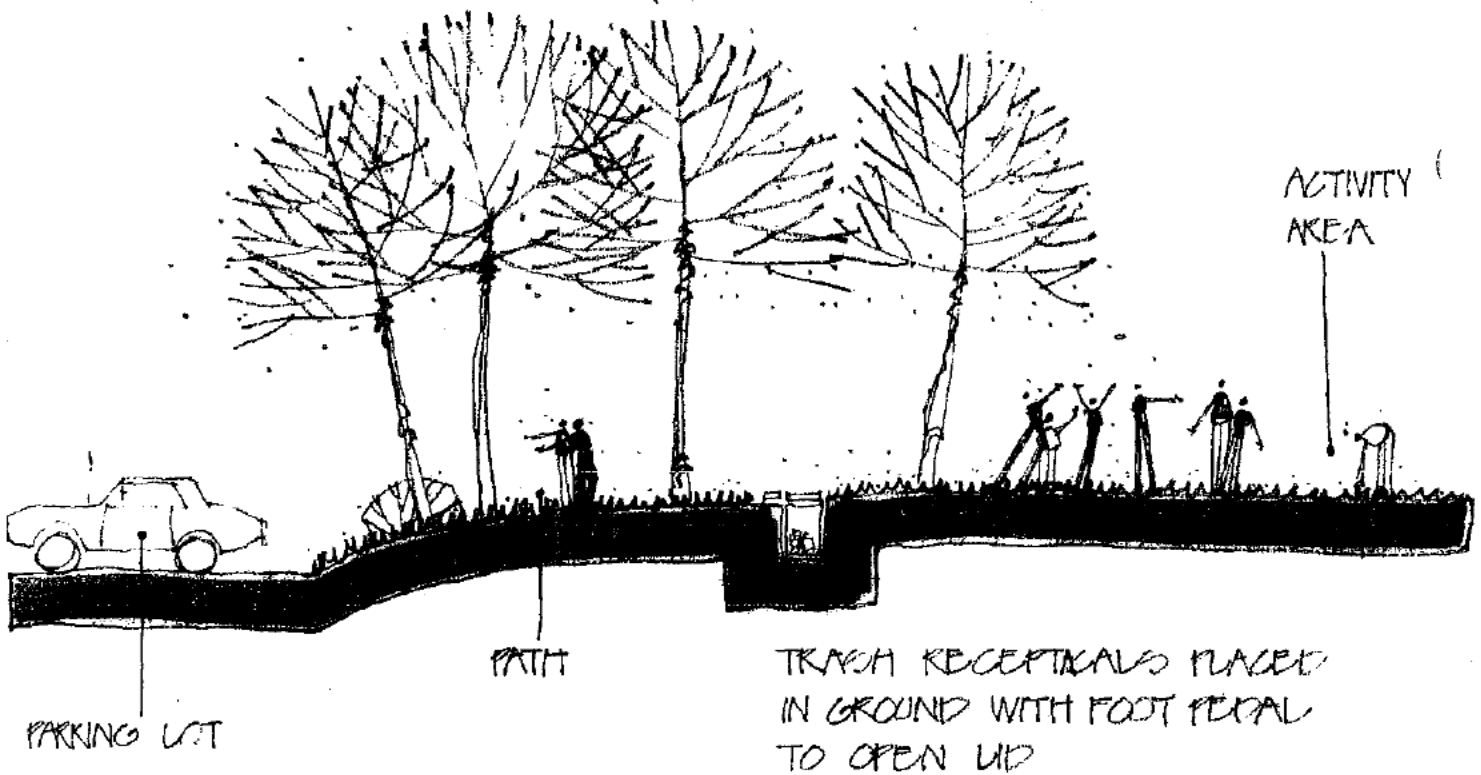


- Placing more trash cans convenient to place of use rather than place of convenient pickup. Carrying food into a picnic area or along a trail is a part of the expectation of the occasion. Carrying trash back out, even with a feeling of environmental consciousness, is a chore (Sketch 11).
- Designing roadside areas to enable use of modern litter clean-up equipment, such as large vacuum systems, and the use of ORV systems to collect trash materials from interior use locations.
- Exploring areas and equipment that would permit on-site disposal or temporary storage of waste material, such as compactors, incinerators, and recycling systems.
- Providing larger capacity trash collection facilities at roadsides for automobile use. This may require modification of some of the "dumpster" systems to make them more attractive and accessible from car windows. For example, have a youth group, at the beginning of summer, paint the dumpsters with creative designs. Trash can capacities at automobile discharge points are invariably inadequate.
- Developing positive reinforcement programs to promote litter prevention and cleanup.

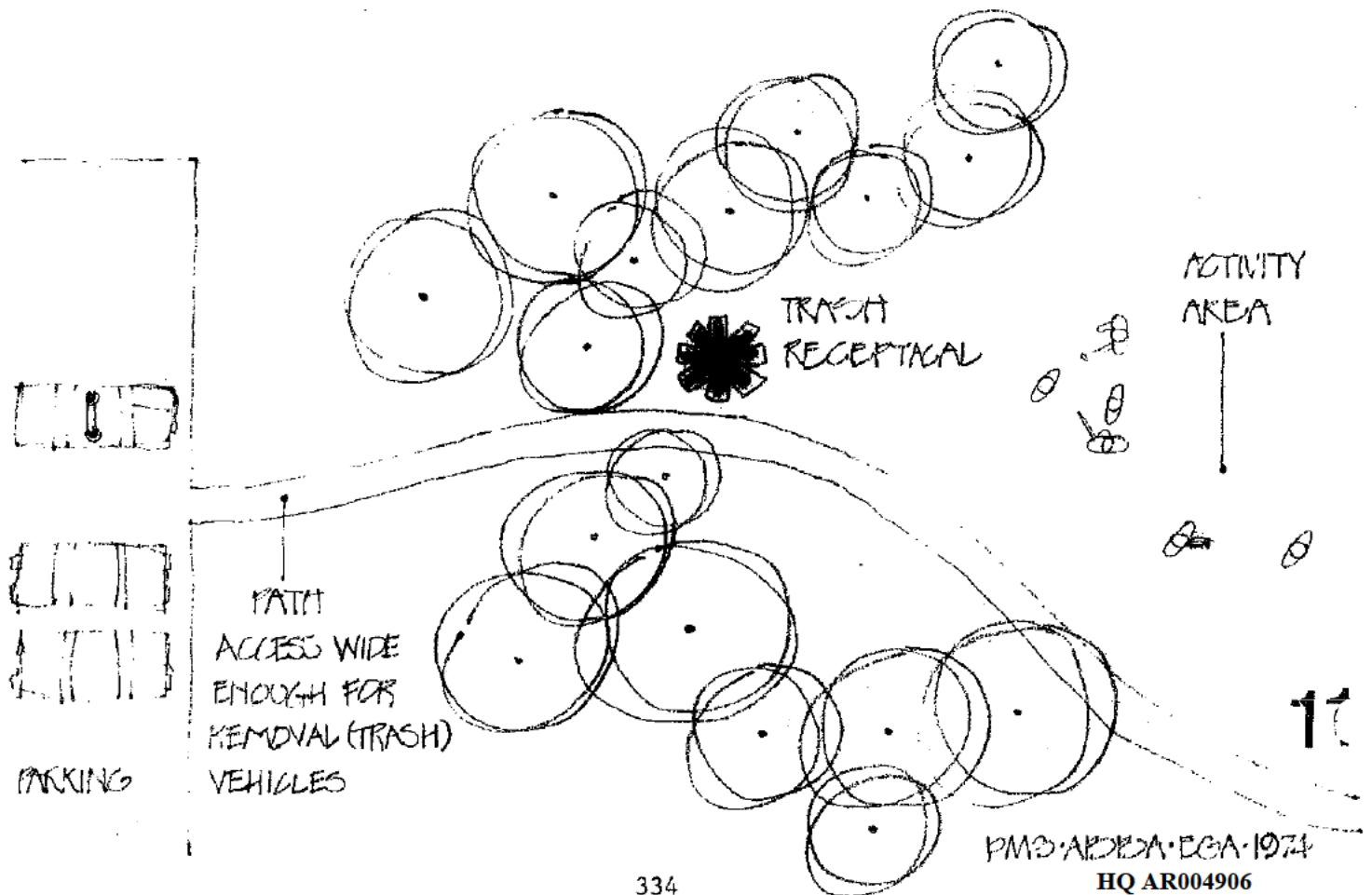
#### Detering Vandalism

The following landscape architectural practices will assist the Corps in deterring possible acts of vandalism at the lakes:

- Replacing vandalized facilities promptly. Well maintained facilities can deter vandalism, while particularly damaged facilities may encourage further destruction.
- Designing and constructing facilities that are resistant to vandalism or are inexpensive to replace. "Vandal-proofing" is already practiced in many instances by Corps design, construction, and maintenance procedures, such as using lucite windows, automatic shower turn-off faucets, and concrete picnic tables. One of the difficult problems is deciding whether it is more cost effective to replace damaged facilities with more damage resistant materials or to simply tolerate replacing with regular or cheaper materials.
- Turning shower facilities over to concessionaires to manage and maintain as a revenue supporting service.
- Returning to single toilet restrooms. Use more portable facilities that are taken away and stored when not needed during periods of low use. Providing simple water vault pit toilets to handle interim periods of low use.



**CONVENIENT LOCATION OF TRASH CAN RECEPTICALS**  
(CONVENIENT TO ACTIVITY AREA RATHER THAN CONVENIENT TO REMOVAL PICKUP POINT)



- Placing parking lots in full view. As previously described, many incidents of larceny are associated with breaking into parked cars. Providing views to day use areas so that visitors may situate their activity at a point where they can observe their parked automobile may reduce this activity. Lighting parking areas at night would also be effective.

#### Improving Visibility

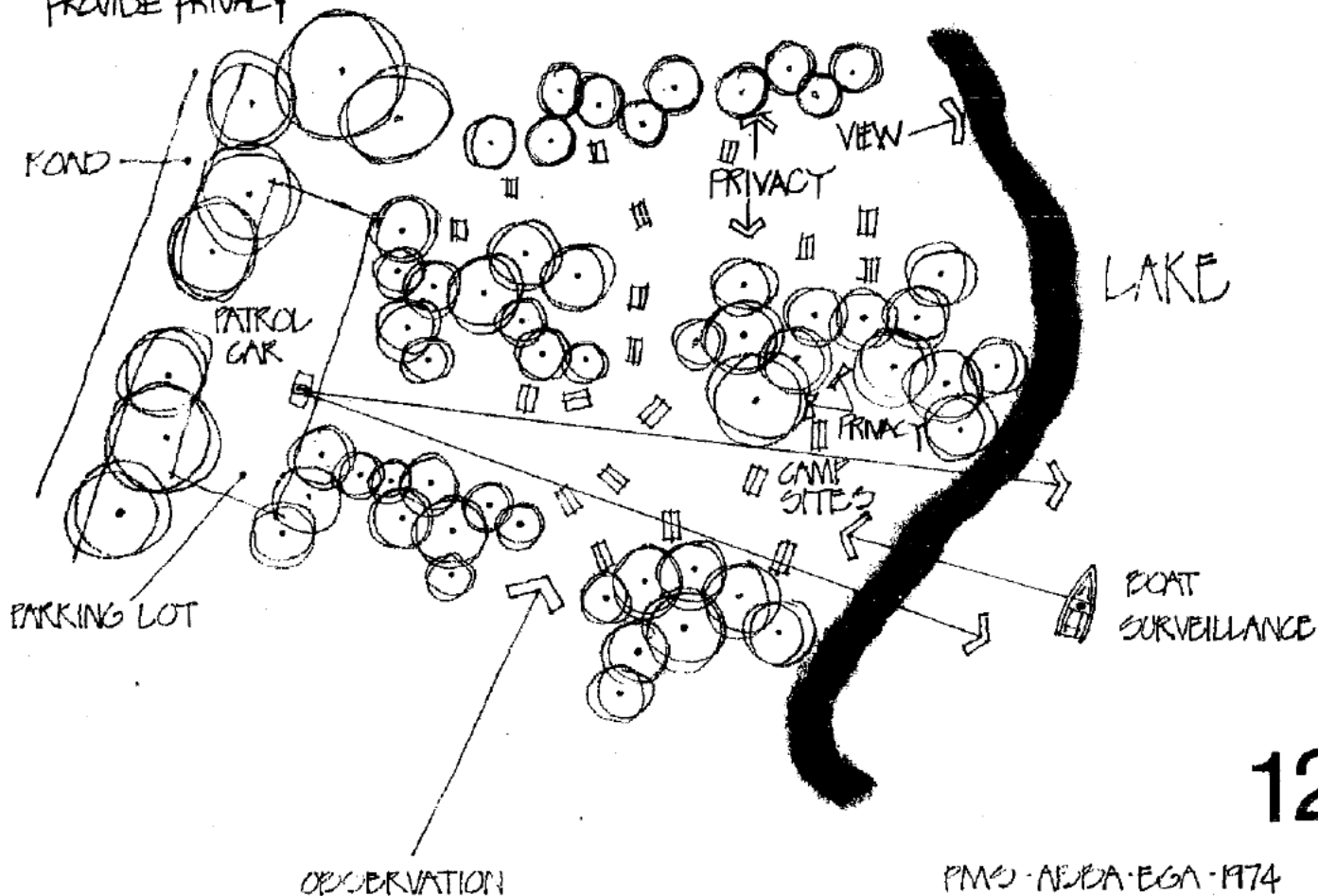
Improving visibility is an excellent landscaping measure which will assist law enforcement and improve visitor protection. Some of the practices are as follows:

- Designing view perspectives to provide visibility while at the same time keeping landscape continuity, functionality and privacy where desired (Sketches 12 and 13).
- Lighting to extend visibility into the night. Intensity, shades, and focuses of lighting may lessen the negative environmental impact of night lighting, such as typically felt in campgrounds (Sketch 14).
- Lights on security patrol vehicles and flashlights should have a distinguishing characteristic by which visitors can identify patrol personnel.
- Improving the application of landscape architectural practices to open up views of use areas and lake vistas would provide better surveillance, greater visitor appreciation, and deterrence to visitors cutting trees and vegetation on their own. The visitors desire to view the lake from picnic areas and campgrounds and other activity areas should be anticipated. Many such areas were observed where overviews of the lake were obliterated by vegetation. Contrary to the commonly expressed notion of environmental protection, selective trimming can enhance the quality of the environment from a human perspective.

#### Zoning

Zoning is a landscape and design technique which has not been used fully and could prove to be very effective. Zoning is a tool for both recreation management and law enforcement and visitor protection which may be applied to control the use of space and time. Consideration should be given to some of the following practices:

SELECTIVE CLEARING TO ENHANCE VIEW  
OF LAKE - IMPROVES SURVEILLANCE AND  
PROVIDE PRIVACY

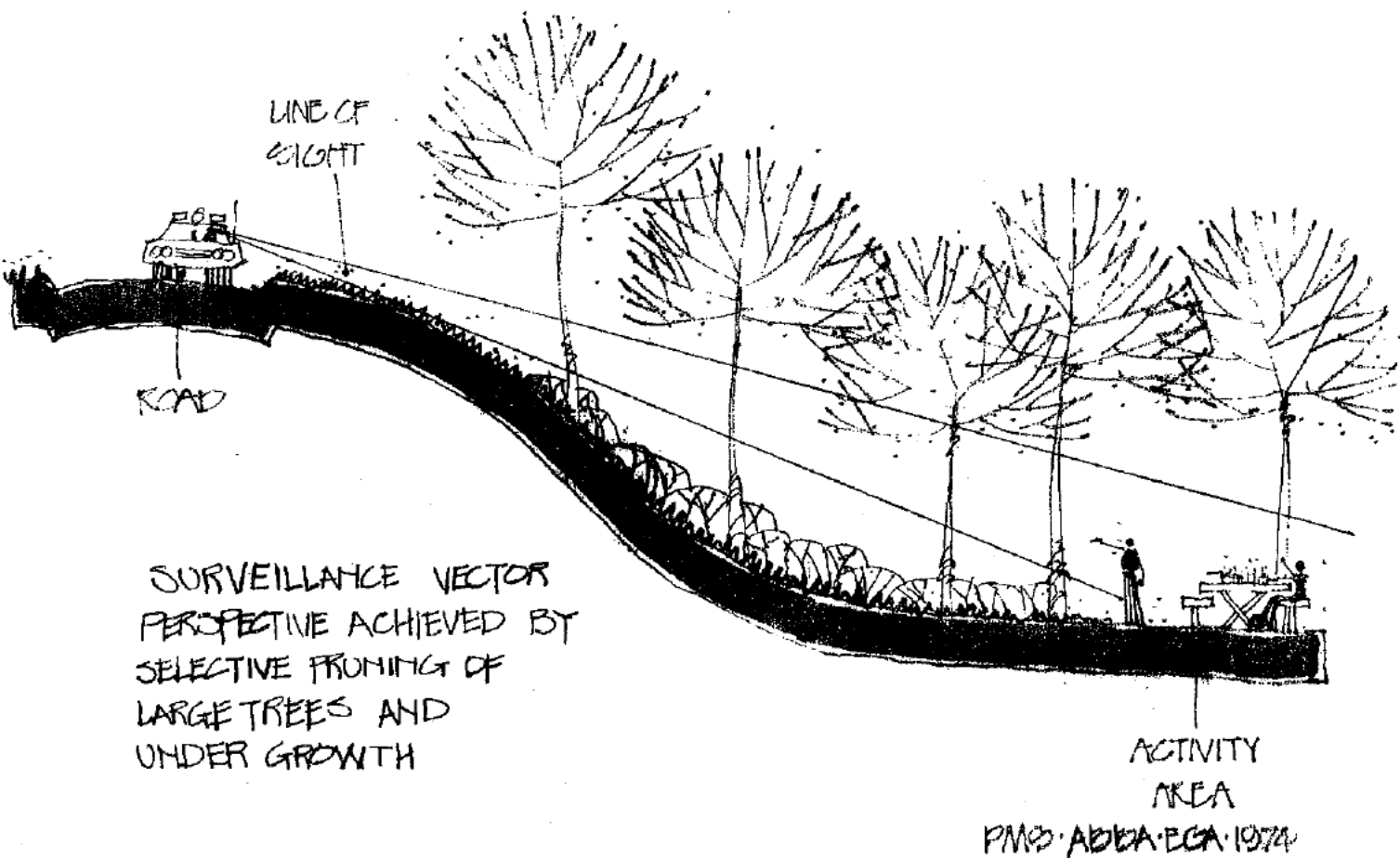


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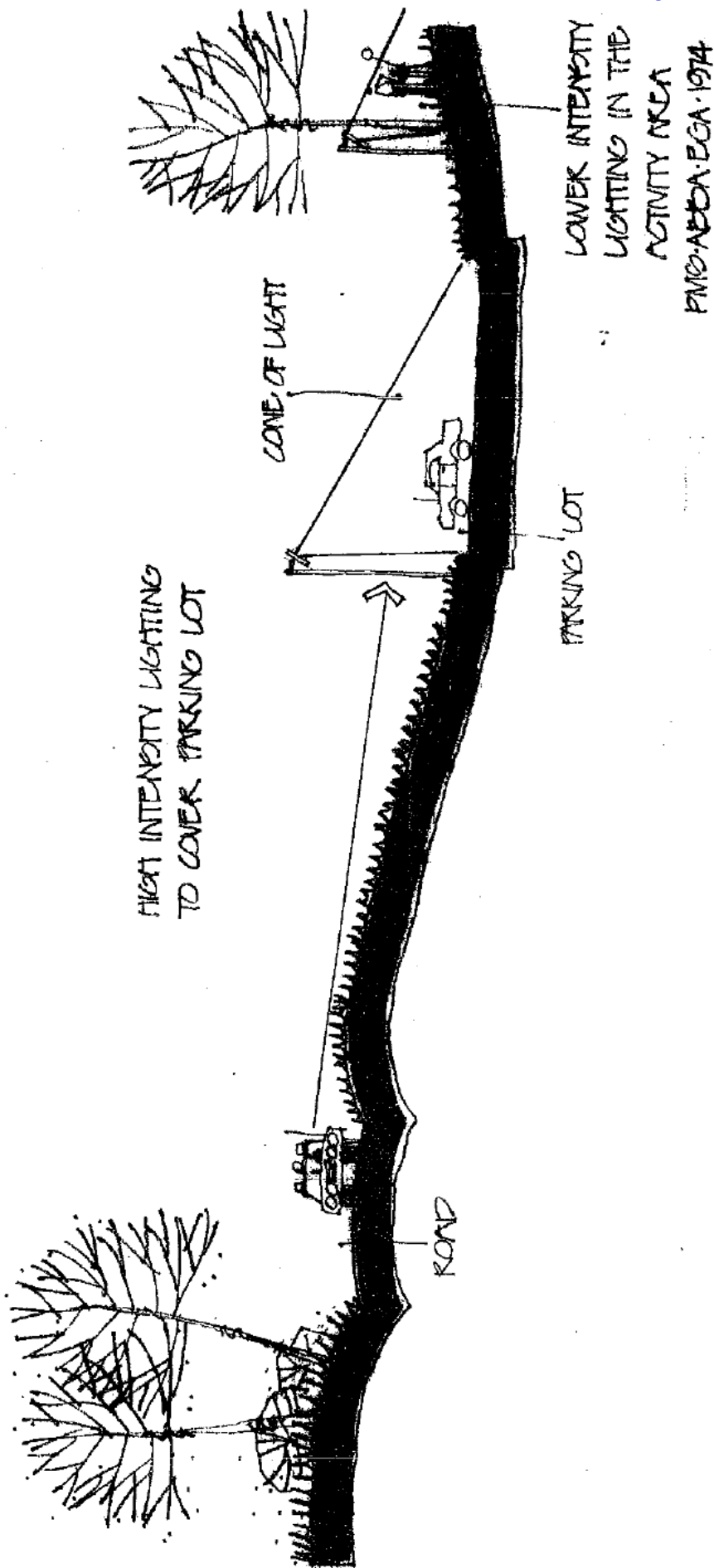
IMPROVED VIEW PERSPECTIVE





13

IMPROVED VIEW PERSPECTIVE



## IMPROVED LIGHTING

14

- Conflicting or incompatible uses may be either segregated into different areas, or alternated or scheduled for use at different time intervals.
- Barriers, either physical or implied, could be used to restrict access, delineate areas, or channel activity movements. It was found in one instance, for example, that an undesirable motorcycle gang was curtailed when a barricade was used to block access 100 yards or so from the campground. The motorcyclists apparently did not like the inconvenience of walking to the campsite nor did they like being separated from their motorcycles. Other kinds of fencing or landscape channels may delineate activity spaces that promote social cohesiveness and self security.
- Time zoning could be managed by imposition of curfews, turning off lights, posting use hours, and establishing reservation systems.
- Zoning controls could also be used to manage densities and distribution of users based on capacity of facilities and environment.
- Use permits are a kind of zoning for special events involving large number of people or particular use of resources (such as boat races). Permits could be approved allowing uses within area capacity, while terms and conditions of use must be specified. The permittee may be required to provide (or reimburse) additional traffic control and security for the event, as well as, portable sanitation and water supply facilities. Special events may also be scheduled at times and locations compatible with regular recreation area use.

Law enforcement planners use such techniques as dispersal, curfews, and access control to maintain peace and order. Such recreation and law enforcement planning factors should be coordinated to work together so that the pattern of recreation activity naturally tends to flow in an orderly manner without appearing overly controlled or structured. The key to effective application of time and space zoning controls is to include authority of enforcement under the ranger's visitor protection powers.

K. Improve Law Enforcement and Visitor Protection Practices and Technology

Law enforcement and visitor protection is not different from any other field from the standpoint of lagging in application of state of

the art practices and technologies. There are many technologies for improving visitor protection which would facilitate the management of a recreation area. Remote black light surveillance systems could relieve the visual pollution problem of illumination at night. In some situations, light at night is an annoyance, such as a lighted parking lot near a campground. There are also sophisticated sound sensitive alarm systems and wireless emergency call boxes that could be further developed for use in recreation area circumstances.

Exploratory R&D is needed to determine the costs at which such technologies would be practical and feasible, and then assess the cost of R&D to perfect the systems to the point of feasibility.

In this light, the expected cost of R&D may be weighed against the value given to the advantage or benefit of having such systems operational. To simply say at this time such systems are too expensive for application is a short-sighted view. The key question is what is the R&D cost to make the technology feasible analyzed against the value to be gained from having it.

#### L. Summary

Some preliminary or initial implications of park practice for law enforcement were formulated in this chapter as a result of study observations. These implications were drawn to the extent possible within the scope of this study for two reasons. The first and obvious reason was to reveal or highlight those practices and guidelines that are understood now and within the state of the art to apply immediately. The second reason was to demonstrate the kind of match-making or new marriage that must occur between the recreation and park design profession and the law enforcement profession. When the law enforcement specialist coordinates with the recreation area design team, a new sphere of communication and reference will need to be established. This chapter has attempted to kindle such a relationship to the end that the Corps of Engineers can provide a better environment and opportunity for recreation experience at its lakes which is fulfilling, safe, and meaningful to the quality of life of all Americans.

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9. Daniel Badger and Norman Wolf, Recreation Study and Assessment of Pool Elevation Effect on Lake Visitation at Lake Texoma, Oklahoma State University, prepared for Tulsa District, U.S. Army Corps of Engineers, October 1972.
10. U. S. Army Corps of Engineers, Corps of Engineers Resource Managers, Office of the Chief of Engineers, Washington, D.C., 1969.

**APPENDICES**

APPENDIX A

AGENCIES VISITED BY PRC/PMS PROJECT TEAM

U.S. Army Corps of Engineers Offices

Missouri River Division  
New England Division  
South Atlantic Division  
North Pacific Division  
Lower Mississippi Division  
South Pacific Division

Mobile District  
Fort Worth District  
Nashville District  
Portland District  
New Orleans District  
Vicksburg District  
Pittsburgh District  
Sacramento District  
Rock Island District  
Kansas City District  
Omaha District  
Huntington District

U.S. Army Corps of Engineers Lakes

Lake Sidney Lanier  
Oahe Dam  
Hop Brook Reservoir  
Grapevine Lake  
J. Percy Priest Reservoir  
Green Peter Lake  
Lake Wright Patman  
Lake of the Pines  
DeGray Lake  
Shenango Lake Reservoir  
Isabella Reservoir  
Lake Red Rock  
Pomme de Terre Lake  
Perry Reservoir  
Milford Lake  
John Kerr Reservoir  
Philpott Lake  
Grayson Lake



Law Enforcement Agencies

State of Georgia

Georgia Bureau of Investigation  
Georgia Highway Patrol  
Hall County Sheriffs Department  
Gwinnet County Police Department

State of Connecticut

Connecticut State Police  
Middlebury Police Department  
Waterbury Police Department  
Naugatuck Police Department

State of Texas

Texas Rangers  
Texas Highway Patrol  
Grapevine Police Department  
Denton County Sheriffs Department  
Tarrant County Sheriffs Department  
Bowie County Sheriffs Department  
Cass County Sheriffs Department  
Marion County Sheriffs Department  
Texas Alcohol Beverage Control  
Texarkana District Constable  
Federal Bureau of Investigation, Texarkana  
Department of Public Safety

State of Oregon

Oregon State Police  
Linn County Sheriffs Department

State of Tennessee

Nashville Police Department  
Rutherford County Sheriffs Department

State of Arkansas

Arkansas State Police  
Clark County Sheriffs Department  
Hot Springs County Sheriffs Department

Law Enforcement Agencies (continued)

State of Pennsylvania

Pennsylvania State Police  
Clark Police Department  
Pymatuning Police Department  
Hickory Police Department  
Sharpsville Police Department  
Mercer County Sheriffs Department  
Trumbull County Sheriffs Department

State of California

California Highway Patrol  
San Francisco Police Department  
Sacramento County Sheriffs Department  
Kern County Sheriffs Department  
Los Angeles County Sheriffs Department

State of Iowa

Iowa Highway Patrol  
Marion County Sheriffs Department

State of South Dakota

Stanley County Sheriffs Department  
Hughes County Sheriffs Department

State of Missouri

Polk County Sheriffs Department  
Hickory County Sheriffs Department

State of Kansas

Jefferson County Sheriffs Department

Parks and Recreation Agencies

Federal Agencies

National Park Service  
Administrative Offices, Washington, D. C.  
San Francisco District Office  
Yosemite National Park

U.S. Forest Service  
Administrative Offices, Washington, D. C.  
Portland District Office  
Sequoia National Park  
Detroit Lake, Oregon

Tennessee Valley Authority

Bureau of Outdoor Recreation

Bureau of Land Management

U.S. Coast Guard

National Agencies

National Recreation and Park Association

State of Oklahoma

Oklahoma Tourism and Recreation Department  
Little River State Park  
Arrowhead State Park  
Fountainhead State Park  
Oklahoma Recreation Department

State of Tennessee

Metro Nashville-Davidson County Parks  
Tennessee Wildlife Resources Commission

State of Georgia

Game and Fish Division  
Department of Natural Resources

State of Oregon

Oregon State Marine Board

Parks and Recreation Agencies (continued)

State of Texas

Texas Parks and Wildlife  
Houston Municipal Parks

State of Arkansas

Arkansas Department of Fish and Game  
DeGray State Park

State of California

California Department of Parks and Recreation  
San Francisco Recreation and Parks Department  
Sacramento County Department of Parks and Recreation  
Kern County Department of Parks and Recreation  
American River Parkway  
East Bay Regional Parks and Recreation Department

State of Iowa

Iowa Conservation Commission

State of Missouri

Missouri State Parks

State of Virginia

Fairfax County  
Fairfax Regional Park Authority

Clerks of Federal, State, and Local Courts

Clerk of Federal Court, Gainesville, Georgia  
Clerk of State and Superior Court, Gainesville, Georgia  
Clerk of Federal Court, Dallas, Texas  
Clerk of Federal Court, Pittsburgh, Pennsylvania

County Auditors

Cass County Texas Auditors Office  
Bowie County Texas Auditors Office  
Hot Springs County Arkansas Auditors Office  
Clark County Arkansas Auditors Office

U.S. Magistrates, State, County and Municipal  
Judges, and Justices of the Peace

U.S. Magistrate, Gainesville, Georgia  
U.S. Magistrate, Dallas, Texas  
U.S. Magistrate, Nashville, Tennessee  
U.S. Magistrate, Hot Springs, Arkansas  
Arkadelphia Municipal Court Judge  
Precinct 1, Texarkana Justice of the Peace  
Bowie County Judge, Texarkana  
Texarkana District Court Judge  
U.S. Magistrate, Bakersfield, California  
U.S. Magistrate, Southern Iowa  
U.S. Magistrate, Eugene, Oregon

U.S. Attorneys

Assistant U.S. Attorney, Nashville Tennessee

APPENDIX B  
VISITOR PROTECTION  
SURVEY  
U.S. ARMY CORPS OF ENGINEERS

Name of Recreation Project (Lake) \_\_\_\_\_

Name of person completing questionnaire \_\_\_\_\_

Title \_\_\_\_\_

Number of years with agency \_\_\_\_\_

Address of lake \_\_\_\_\_

Telephone number \_\_\_\_\_

District Office \_\_\_\_\_

I. Environmental/Demographic Characteristics

A. Size of Lake

1. Land Area: \_\_\_\_\_ Acres
2. Water Area: \_\_\_\_\_ Acres

B. Miles of Shoreline \_\_\_\_\_

C. List the jurisdictions by name leasing or owning property within the Federal boundary on the lake.

1. State(s) \_\_\_\_\_
2. Counties \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Cities/Towns \_\_\_\_\_
4. Other (specify) \_\_\_\_\_
5. Total number of direct concessionaire leases \_\_\_\_\_
6. Total number of third party concessionaire leases \_\_\_\_\_

- D. Please complete the following table giving total miles on the lake within the Federal boundary maintained by the respective agency.

|        | Trails | Paved Roads |            | Unpaved Roads |
|--------|--------|-------------|------------|---------------|
|        |        | Two-Lane    | Multi-Lane |               |
| Corps  |        |             |            |               |
| State  |        |             |            |               |
| County |        |             |            |               |
| City   |        |             |            |               |
| Other  |        |             |            |               |
| Total  |        |             |            |               |

- E. List the number of developed areas at the lake controlled by the agencies below. Also list the total number of spaces available within the area, such as tent spaces, trailer spaces, picnic tables, etc.

|                 | Overnight<br>Camping<br>Areas | Total<br>Tent<br>Spaces | Total<br>Trailer<br>Spaces | Picnic<br>Areas | Total<br>Picnic<br>Tables | Lodge<br>or<br>Motels | Total<br>Rooms |
|-----------------|-------------------------------|-------------------------|----------------------------|-----------------|---------------------------|-----------------------|----------------|
| Corps           |                               |                         |                            |                 |                           |                       |                |
| State           |                               |                         |                            |                 |                           |                       |                |
| County          |                               |                         |                            |                 |                           |                       |                |
| City            |                               |                         |                            |                 |                           |                       |                |
| Other (specify) |                               |                         |                            |                 |                           |                       |                |

Include a brochure or print-out detailing the above Table E if available.

- F. Please list the total recreation days at the lake in the last calendar year (use best estimate).

1. Summer (mid-June, Jul, Aug, mid-Sep) \_\_\_\_\_
2. Fall (mid-Sep, Oct, Nov, mid-Dec) \_\_\_\_\_
3. Winter (mid-Dec, Jan, Feb, mid-Mar) \_\_\_\_\_

4. Spring (mid-March, Apr, May, mid-Jun) \_\_\_\_\_
  5. Weekdays \_\_\_\_\_
  6. Weekends \_\_\_\_\_
  7. Day Use \_\_\_\_\_
  8. Overnight Camping \_\_\_\_\_
- G. Briefly explain the method you use to count attendance \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- H. What is the predominant character of the lake: (Circle one)
1. Urban (within 30 miles of a large city)
  2. Urban (developed areas with respect to housing units, motels, etc. located on fringe of lake)
  3. Rural
  4. Other: Please specify \_\_\_\_\_
- I. What are the hours of operation of the day use facilities at the lake?
1. Summer \_\_\_\_\_
  2. Winter \_\_\_\_\_
- J. What is the cost (fee) to the user for overnight camping at Corps areas? \$ \_\_\_\_\_
- K. What was the total amount of money collected at the lake in user fees during the past calendar year? \$ \_\_\_\_\_
- L. At how many Corps areas are users fees collected? \_\_\_\_\_
- M. What is the method(s) of collection of user fees? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- N. How many Ranger sub-stations are located around the lake?  
 \_\_\_\_\_
- O. Are these sub-stations manned with rangers only during the summer?
1. Yes
  2. No
  3. When else \_\_\_\_\_
  4. How many Rangers \_\_\_\_\_



P. Number of structures surrounding the lake within the Federal boundary.

1. Single dwelling houses \_\_\_\_\_
2. Motels/hotels \_\_\_\_\_
3. Tourist Cottages (number of individual cottages) \_\_\_\_\_
4. Grocery stores \_\_\_\_\_
5. Gas stations \_\_\_\_\_
6. Stores selling liquor \_\_\_\_\_
7. Concession stands \_\_\_\_\_
8. Other (specify) \_\_\_\_\_

II. Existing Law Enforcement and Visitor Protection Problems at the Lake

A. List the major visitor protection problems at this lake in priority order; (e.g., robbery, vandalism, traffic, littering, erosion, etc.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

B. Estimate what percentage of these problems you think are caused by:

|                                         |         |
|-----------------------------------------|---------|
| In-state visitors picknicking (day use) | _____ % |
| In-state visitors camping overnight     | _____ % |
| Local residents                         | _____ % |
| Out-of-state visitors camping           | _____ % |
| Other (specify)                         | _____ % |

|       |      |
|-------|------|
| TOTAL | 100% |
|-------|------|

- C. In your opinion to what extent would the following types of security measures alleviate the major law enforcement problems you identified in question II. A.? Circle one letter for each measure listed.

A -- no effect  
 B -- some effect  
 C -- major effect

|                                        | <u>No<br/>Effect</u> | <u>Some<br/>Effect</u> | <u>Major<br/>Effect</u> |
|----------------------------------------|----------------------|------------------------|-------------------------|
| 1. Better lighting at night            | A                    | B                      | C                       |
| 2. Emergency phones at developed areas | A                    | B                      | C                       |
| 3. Security Patrol (surveillance)      | A                    | B                      | C                       |
| 4. Fence Control                       | A                    | B                      | C                       |
| 5. Curfew Enforcement                  | A                    | B                      | C                       |
| 6. Reducing Shrubbery                  | A                    | B                      | C                       |
| 7. Improved Night Visibility           | A                    | B                      | C                       |
| 8. Other (specify) _____               | A                    | B                      | C                       |

- D. In your opinion, to what extent is visitor protection considered in the following: Circle the appropriate letter.

A -- no consideration  
 B -- some consideration  
 C -- major consideration

|                                     | <u>No<br/>Consideration</u> | <u>Some<br/>Consideration</u> | <u>Major<br/>Consideration</u> |
|-------------------------------------|-----------------------------|-------------------------------|--------------------------------|
| 1. Planning layout of area          | A                           | B                             | C                              |
| 2. Selection of types of facilities | A                           | B                             | C                              |
| 3. Design of facilities             | A                           | B                             | C                              |
| 4. Location of entrance roads       | A                           | B                             | C                              |
| 5. Location of circulation roads    | A                           | B                             | C                              |
| 6. Lighting                         | A                           | B                             | C                              |
| 7. Fencing                          | A                           | B                             | C                              |
| 8. Landscaping                      | A                           | B                             | C                              |

- E. In your experience, how does inadequate visitor protection and law enforcement appear to affect visitors: Circle one letter for each cause listed.

A -- Yes  
B -- Undecided  
C -- No

|                                    | <u>Yes</u> | <u>Undecided</u> | <u>No</u> |
|------------------------------------|------------|------------------|-----------|
| 1. May go elsewhere                | A          | B                | C         |
| 2. Less satisfaction and enjoyment | A          | B                | C         |
| 3. Causes fear and anxiety         | A          | B                | C         |
| 4. Unwillingness to pay use fee    | A          | B                | C         |
| 5. Attracts troublemakers          | A          | B                | C         |
| 6. Other (specify)_____            | A          | B                | C         |

- F. In your opinion, would improved visitor protection have the following effects on visitation to recreation facilities: Circle one letter for each effect listed.

A -- Yes  
B -- Undecided  
C -- No

|                                                      | <u>Yes</u> | <u>Undecided</u> | <u>No</u> |
|------------------------------------------------------|------------|------------------|-----------|
| 1. More people in concentrated areas                 | A          | B                | C         |
| 2. More dispersion of people throughout project area | A          | B                | C         |
| 3. Increased day use                                 | A          | B                | C         |
| 4. Increased overnight use                           | A          | B                | C         |
| 5. Willingness to pay use fees                       | A          | B                | C         |
| 6. Other (specify)_____                              | A          | B                | C         |

- G. To what extent are the following types of traffic related issues a problem at this lake? List 1, 2, 3, etc., according to priority of occurrence.

( ) Traffic congestion

- ☐ Parking  
☐ Traffic crashes  
☐ Vehicle breakdown  
☐ Moving traffic violation  
☐ Off road vehicles  
☐ Other, specify \_\_\_\_\_  
☐ No traffic problems

H. What time of day do your primary law enforcement problems occur? List 1, 2, 3, etc., according to priority of occurrence.

Summer months (mid-Jun to mid-Sep)

Rest of the Year (mid-Sep to mid-Jun)

☐ 0600 - 1159

☐ 0600 - 1159

☐ 1200 - 1559

☐ 1200 - 1559

☐ 1600 - 1959

☐ 1600 - 1959

☐ 2000 - 2359

☐ 2000 - 2359

☐ 0000 - 0259

☐ 0000 - 0259

☐ 0300 - 0559

☐ 0300 - 0559

I. On what day or days of the week do the primary law enforcement problems occur? List 1, 2, 3, etc.

☐ Sunday

☐ Thursday

☐ Monday

☐ Friday

☐ Tuesday

☐ Saturday

☐ Wednesday

J. Are the law enforcement problems more severe on holidays than on normal days?

1. Yes

2. No

- K. (Circle the number which best describes the present situation)  
The citation power and Ranger authority is sufficient to maintain order at the lakes?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- L. There is a need for more authority such as broad power of arrest?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- M. There is a need for more authority and ranger protection such as the authority to carry firearms?

|                                 |              |                  |                 |                                    |
|---------------------------------|--------------|------------------|-----------------|------------------------------------|
| <u>Strongly</u><br><u>Agree</u> | <u>Agree</u> | <u>Undecided</u> | <u>Disagree</u> | <u>Strongly</u><br><u>Disagree</u> |
| 1                               | 2            | 3                | 4               | 5                                  |

- N. When you reprimand or give verbal warnings to recreation visitors for the purpose of correcting their behavior, which of the following statements best describes their usual reaction? Are they...  
(circle the appropriate answer)

1. Very cooperative
2. Slightly cooperative
3. Uncooperative
4. Very uncooperative

### III. Law Enforcement/Visitor Protection Delivery Systems

- A. List at least six types of services provided by Corps personnel that you consider to be related to visitor protection at the lake.

| Type of Service |
|-----------------|
| 1. _____        |
| 2. _____        |
| 3. _____        |
| 4. _____        |
| 5. _____        |
| 6. _____        |

B. List the names and addresses of all law enforcement agencies that provided any form of service at the lake during the past calendar year.

|                                              |                                              |
|----------------------------------------------|----------------------------------------------|
| 1. _____<br>_____<br>_____<br>_____<br>_____ | 2. _____<br>_____<br>_____<br>_____<br>_____ |
| 3. _____<br>_____<br>_____<br>_____<br>_____ | 4. _____<br>_____<br>_____<br>_____<br>_____ |
| 5. _____<br>_____<br>_____<br>_____<br>_____ | 6. _____<br>_____<br>_____<br>_____<br>_____ |

C. List the ranger personnel assigned to this lake (use other side if necessary)

| Title/GS Level | # Full-Time |        | # Part-Time |        | Average Days per Year for Part-Time |
|----------------|-------------|--------|-------------|--------|-------------------------------------|
|                | Male        | Female | Male        | Female |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |
|                |             |        |             |        |                                     |

Are the part-time all summer help?     ( ) Yes  
                                                      ( ) No

- D. How many of the above listed positions are authorized to issue citations?

- E. Estimate the percentage of the average ranger's day devoted to the visitor protection services you described.

- |                                              |                                             |
|----------------------------------------------|---------------------------------------------|
| 1. Summer months<br><u>(May - September)</u> | 2. Rest of year<br><u>(October - April)</u> |
| ( ) 0-10%                                    | ( ) 0-10%                                   |
| ( ) 11-20%                                   | ( ) 11-20%                                  |
| ( ) 21-40%                                   | ( ) 21-40%                                  |
| ( ) 41-60%                                   | ( ) 41-60%                                  |
| ( ) 61-79%                                   | ( ) 61-79%                                  |
| ( ) Over 80%                                 | ( ) Over 80%                                |

- F. Do the rangers at this lake maintain a set schedule of security patrol? ( ) Yes  
( ) No

- G. If yes, describe how this security patrol is carried out.

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- H. List the working schedule for rangers at the lake.

1. During the summer months ( May - September )

| Shift<br>(What Hrs.) | Total No. of Full-<br>Time Rangers | Total No. of Part-<br>Time Rangers |
|----------------------|------------------------------------|------------------------------------|
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |

## 2. During the winter months

| Shift<br>(What Hrs.) | Total No. of Full-<br>Time Rangers | Total No. of Part-<br>Time Rangers |
|----------------------|------------------------------------|------------------------------------|
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |
|                      |                                    |                                    |

I. How many citations were issued by rangers at this lake in calendar year 1973? \_\_\_\_\_

J. List the five most predominant reasons for the issuance of citations by rangers in calendar year 1973 together with either the actual count or your best estimate of the number of each type:

Citation ReasonsNumber

- |          |       |
|----------|-------|
| 1. _____ | _____ |
| 2. _____ | _____ |
| 3. _____ | _____ |
| 4. _____ | _____ |
| 5. _____ | _____ |

K. How many written warnings were issued by rangers in calendar year 1973? \_\_\_\_\_

L. Are records maintained of both citations and warnings at the lake office?

1. Citations  
☐ Yes  
☐ No

2. Written Notice  
☐ Yes  
☐ No

M. At what locations around the lake were the majority of citations and warnings issued? List in order of occurrence 1, 2, 3, etc.

1. ☐ Overnight camp sites
2. ☐ Day use
3. ☐ Water surface



4. ( ) Undeveloped areas

5. ( ) Other, specify \_\_\_\_\_

N. Are the law enforcement problems mostly due to (check one):

1. ( ) Adults

2. ( ) Juveniles

O. Have any ranger personnel been physically assaulted by recreation users in calendar year 1973?

1. ( ) Yes

2. ( ) No

Any medical treatment required for Corp staff assaulted?

( ) Yes. How many cases? \_\_\_\_\_

( ) No

P. List the total number of crimes reported to ranger personnel in calendar year 1973 which occurred in the Federal Boundary.

1. ( ) Murder # \_\_\_\_\_

2. ( ) Rape # \_\_\_\_\_

3. ( ) Robbery # \_\_\_\_\_

4. ( ) Auto Theft # \_\_\_\_\_

5. ( ) Aggravated Assault # \_\_\_\_\_

6. ( ) Theft (major over \$50 in valuables) # \_\_\_\_\_

7. ( ) Theft (minor under \$50 in valuables) # \_\_\_\_\_

Q. Is there any preventive patrol or surveillance provided on a regular schedule in Corps developed areas of the lake by:

1. State Police ( ) Yes ( ) No

2. County Sheriff or Police ( ) Yes ( ) No

3. Corps Rangers ( ) Yes ( ) No

4. City Police ( ) Yes ( ) No

5. Private Police ( ) Yes ( ) No

6. Other, specify \_\_\_\_\_ ( ) Yes ( ) No

R. What agency(s) does the Corps Rangers call upon for emergency assistance (i.e., lost persons, civil disorder, drowning, traffic accidents, etc.). List by name.

1. State Police ☐ Yes ☐ No
2. County Sheriff or Police ☐ Yes ☐ No
3. ~~Other Federal Agency~~ ☐ Yes ☐ No
4. City Police ☐ Yes ☐ No
5. Private Police ☐ Yes ☐ No
6. Other, specify \_\_\_\_\_ ☐ Yes ☐ No

S. What agency provides surveillance and law enforcement on the water areas?

1. ☐ Corps Rangers \_\_\_\_\_
2. ☐ State Authority \_\_\_\_\_
3. ☐ County or City \_\_\_\_\_
4. ☐ Other Federal \_\_\_\_\_
5. ☐ Other, specify \_\_\_\_\_

T. During the summer season does this lake need patrol and surveillance by sworn police officers on a regular interval schedule? Check one of the following:

1. ☐ 24 hours a day every day of the week
2. ☐ less than 24 hours a day, every day of the week
3. ☐ only on weekends
4. ☐ only on holidays
5. ☐ No regular patrol needed as long as access is available for specific or emergency calls.

IV. Equipment Inventory

A. How many of the following are used by the Corps at this lake:

|                                                             | <u>No. Owned<br/>or Leased<br/>by Agency</u> | <u>No. Owned<br/>by Officer<br/>&amp; Used on Job</u> | <u>Total</u> | <u>How Many Are<br/>Equipped With<br/>Police Radios?</u> |
|-------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------|--------------|----------------------------------------------------------|
| 1. Trucks or Jeeps (designed for passengers)                | _____                                        | _____                                                 | _____        | _____                                                    |
| 2. Automobiles or station wagons                            | _____                                        | _____                                                 | _____        | _____                                                    |
| 3. Boats <u>with</u> motors (Inboard or Outboard)           | _____                                        | _____                                                 | _____        | _____                                                    |
| 4. Boats <u>without</u> motors                              | _____                                        | _____                                                 | _____        | _____                                                    |
| 5. 2 - Wheel motorcycles                                    | _____                                        | _____                                                 | _____        | _____                                                    |
| 6. Trucks or vans (designed for cargo)                      | _____                                        | _____                                                 | _____        | _____                                                    |
| 7. Horses (include all horses used at<br>least once a year) | _____                                        | _____                                                 | _____        | _____                                                    |
| 8. Bicycles                                                 | _____                                        | _____                                                 | _____        | _____                                                    |
| 9. Hand-held police radios or walkie-talkies                | _____                                        | _____                                                 | _____        | _____                                                    |
| 10. Aircraft                                                | _____                                        | _____                                                 | _____        | _____                                                    |
| 11. Firearms                                                | _____                                        | _____                                                 | _____        | _____                                                    |
| 12. Flashlights                                             | _____                                        | _____                                                 | _____        | _____                                                    |
| 13. Riot Sticks                                             | _____                                        | _____                                                 | _____        | _____                                                    |
| 14. Other (specify)_____                                    | _____                                        | _____                                                 | _____        | _____                                                    |

B. Are the communication radios on the vehicles on the same frequency channel as the:

1. ( ) State Police
2. ( ) County Police
3. ( ) County Sheriff
4. ( ) City Police
5. ( ) Other (specify)\_\_\_\_\_

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- C. Estimate FY 1973 annual costs, including labor, of replacement and restoration of equipment, furniture, buildings, embankments, etc., at the lake due to crime, vandalism and littering.  
\$ \_\_\_\_\_
- D. Estimate, if possible, costs due to crime and vandalism incurred by private parties (e.g., visitors, merchants, etc.).  
\$ \_\_\_\_\_
- E. Do the costs in C. and D. above appear to be about the same \_\_\_\_\_; less than \_\_\_\_\_; more than \_\_\_\_\_ the previous year (FY 1972)? If a change is indicated, what is your estimate of the amount of change? \_\_\_\_\_

#### V. Education

- A. How many of the full-time staff are currently enrolled in college or junior college? \_\_\_\_\_
- B. Have any full-time rangers completed a 2-year college degree program? ( ) Yes, Number \_\_\_\_\_  
( ) No
- C. Have any full-time rangers completed a 4-year college degree program? ( ) Yes, Number \_\_\_\_\_  
( ) No
- D. How many of the full-time rangers have working experience in law enforcement (i.e., military police, police officers, deputy sheriffs?) \_\_\_\_\_

#### VI. Training

- A. How many rangers have received law enforcement training in conjunction with the citation program? \_\_\_\_\_
- B. Who administered the training? \_\_\_\_\_
- C. How long was the session? \_\_\_\_\_
- D. Is there a need for additional law enforcement training in any other areas?
1. ( ) Yes, (specify) \_\_\_\_\_
2. ( ) No

#### VII. Operating Costs

- A. What were the Corps of Engineers authorized "obligations incurred" or expenditures at this lake in Fiscal Year 1973?  
Amount \$ \_\_\_\_\_

- B. Estimate percentage of total Corps lake budget above allocated to the following classes of expenditure and further estimate the amounts devoted to security and protection services (e.g., police patrol, security devices, signs, lighting, fences, etc.).

|                                                         | <u>Percent of Expenditures</u> | <u>Amount Security and Protection</u> |
|---------------------------------------------------------|--------------------------------|---------------------------------------|
| 1. Personnel salaries and fringes                       | _____                          | _____                                 |
| 2. Operating expenses (supplies, utilities, fuel, etc.) | _____                          | _____                                 |
| 3. Contract maintenance services                        | _____                          | _____                                 |
| 4. Other contract services                              | _____                          | _____                                 |
| 5. Construction                                         | _____                          | _____                                 |
| 6. Equipment                                            | _____                          | _____                                 |
| 7. Other                                                | _____                          | _____                                 |
| TOTAL                                                   | _____                          | _____                                 |

Read these instructions to assist you in completing the attached table. Detach the table and place it next to the questions for easy reference.

In filling out the following table you must determine the level of use, security, and security problems of the areas listed in the first column of the table. For example, under the category of level of use, if the picknicking areas are not used to capacity, you would place the Number "1" in the column opposite picnicking directly beneath the category of level of recreation use. The rest of the table should be completed in the same manner.

- I. Level of Recreation Use. Choose the letter which best describes the level of recreation use in each of the areas listed in the first column. Place this Number under the category of level of recreation use directly opposite the area to which you are referring.

1 - Not used to capacity

2 - Used to capacity

3 - Used to overcapacity

II. Level of Security. Choose the Number which best describes the lighting, communications, (i.e., call boxes, telephones, etc.), security patrol, etc. in each of the areas listed in the first column. Place this letter under the category of lighting, communications, etc. directly opposite the area to which you are referring.

A. Lighting in each area:

1 - No lighting at night

2 - Some lighting at night

3 - Most are lighted at night

4 - All areas lighted at night

B. Communications:

1 - Telephones or call boxes are located in each area

2 - Telephones or call boxes are not located in each area

C. Security patrol and surveillance of each area:

1 - No patrol of the area

2 - Some patrol of the area

3 - Area patrolled most of the time

D. Site access and control:

1 - No control of road

2 - Some control

3 - Most site accesses controlled

III. Level of Security Problem. Choose the Number which best describes the level of the security problems in the lake areas and complete according to previous instructions.

1 - No problem

2 - Some problem

3 - A major problem

IV. Estimated Cost for the Corps to Achieve Desired Level of Security.

In your opinion, estimate the initial capital costs and annual operating costs of increasing the visitor security to an adequate level in each area listed. If the security is already adequate, place a zero in the column.

V. Contributing Management Problems Affecting Visitor Security Protection.

Choose the Number which best describes the level of management problems with topography, trees, undergrowth, etc. in each of the areas listed in the first column. Place this letter under the category of topography, trees, etc. directly opposite the areas to which you are referring.

1 - No problem

2 - Some problem

3 - A major problem

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| Choose the letter which best describes the level in each category and place it opposite each area below.<br><br>KIND OF AREA | I<br>Level<br>of<br>Recreation<br>Use | II Level of Security |                                |                 |             |  |  | III<br>Level<br>of<br>Security<br>Problem | IV<br>Estimated cost to achieve desired level of security |                        | V<br>Contributing Management Problems to Visitor Security Protection |       |             |                   |                         |                    |                             |                 |  |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------|--------------------------------|-----------------|-------------|--|--|-------------------------------------------|-----------------------------------------------------------|------------------------|----------------------------------------------------------------------|-------|-------------|-------------------|-------------------------|--------------------|-----------------------------|-----------------|--|
|                                                                                                                              |                                       | Lighting             | Communications; i.e., call box | Security Patrol | Sign Access |  |  |                                           | Initial (Capital) Costs                                   | Annual Operating Costs | Topography                                                           | Trees | Undergrowth | Lake Surveillance | Camping Facility Design | Picnic Area Design | Difficult Facilities Access | Other (Specify) |  |
| Picnicking                                                                                                                   |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Camping                                                                                                                      |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Swimming                                                                                                                     |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Beaches                                                                                                                      |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Boat launch ramps                                                                                                            |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Piers, wharfs                                                                                                                |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Floating docks & other structures                                                                                            |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Marinas                                                                                                                      |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Stores                                                                                                                       |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Restaurants                                                                                                                  |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Nature trails                                                                                                                |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| On-site walks                                                                                                                |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Onto site walking access                                                                                                     |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Road access                                                                                                                  |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Scenic drives                                                                                                                |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Overlooks                                                                                                                    |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Parking areas                                                                                                                |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Restrooms                                                                                                                    |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Showers                                                                                                                      |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Undeveloped Areas                                                                                                            |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |
| Other, Specify                                                                                                               |                                       |                      |                                |                 |             |  |  |                                           |                                                           |                        |                                                                      |       |             |                   |                         |                    |                             |                 |  |



APPENDIX C

CORPS OF ENGINEERS CLASSES OF LAKES BY ATTENDANCE

I. Class A Lakes - Urban Areas

1. Buford Dam Lake Sidney Lanier
2. Denison Dam Lake Texoma
3. Hartwell Lake
4. Allatoona Lake
5. Table Rock Lake
6. Old Hickory Lock and Dam
7. Eufaula Lake
8. Ferrells Bridge Dam Lake O' the Pines
9. Tenkiller Ferry Lake
10. Fort Gibson Lake
11. Grapevine Lake
12. J. Percy Priest Dam and Reservoir
13. Greers Ferry Lake
14. Beaver Lake
15. Keystone Lake
16. Norfolk Lake
17. Lewisville Dam
18. Carlyle Lake
19. Millwood Lake
20. Benbrook Lake
21. Belton Lake
22. Perry Lake
23. Cheatham Lock and Dam
24. Lavon Lake
25. Milford Lake
26. Coralville Lake
27. Youghiogheny River Lake
28. Waco Lake
29. Arkabutla Lake
30. Fern Ridge Lake
31. Stillhouse Hollow Lake
32. Red Rock Dam and Lake Red Rock
33. Dewey Lake
34. Shenango River Lake
35. Heyburn Lake
36. Sutton Lake
37. Pine Flat Lake
38. Navarro Mills Lake
39. Nolin Lake
40. San Angelo Lake
41. Webbers Falls Lock and Dam (Arkansas River Navigation System)
42. Albeni Falls Dam and Lake Pend Oreille
43. Cottage Grove Lake

Class A Lakes - Rural Areas

1. Clark Hill Lake
2. Barkley L & D Lake Barkley
3. Whitney Lake
4. Center Hill Lake
5. John H. Kerr Dam and Reservoir
6. Gavins Point Dam Lewis and Clark Lake
7. Bull Shoals Lake
8. Jim Woodruff L & D Lake Seminole
9. Walter F. George L & D (Chattahoochee River System)
10. Blakely Mountain Dam Lake Ouachita
11. Lake Shelbyville
12. Dale Hollow Lake
13. Wright Patman Dam and Lake (Lake Texarkana)
14. Somerville Lake
15. Sam Rayburn Dam and Reservoir
16. Narrows Dam Lake Greeson
17. Pomme de Terre Lake
18. Dardanelle L & D (Arkansas River Navigation System)
19. DeGray Lake
20. Oahe Dam Lake Oahe
21. Stockton Lake
22. Sardis Lake
23. Wappapello Lake
24. Pomona Lake
25. Fort Randall Dam Lake Francis Case
26. Somerville Lake
27. Tuttle Creek Lake
28. Rough River Lake
29. Oologah Lake
30. Rathbun Lake
31. Philpott Lake
32. Lucky Peak Lake
33. Canton Lake
34. Broken Bow Lake
35. Garrison Dam Lake Sakakawea
36. John Day Lock and Dam Lake Umatilla
37. Barren River Lake
38. Bluestone Lake
39. Council Grove Lake
40. Town Bluff Dam B A Steinhagen Lake
41. Isabella Lake
42. Enid Lake
43. Big Bend Lake Lake Sharpe
44. Rend Lake
45. Clearwater Lake
46. W. Kerr Scott Dam and Reservoir
47. Marion Lake
48. Harlan County Lake
49. Leech Lake

Class A Lakes - Rural Areas (continued)

50. Fort Peck Lake
51. Success Lake
52. Robert S. Kerr L & D & Reservoir (Arkansas River Navigation System)
53. Bardwell Lake
54. John Redmond Dam and Reservoir
55. Proctor Lake Texas
56. East Lynn Lake
57. Grayson Lake
58. Kanopolis Lake
59. Pine Creek Lake
60. Tionesta Lake
61. Nimrod Lake
62. Hulah Lake
63. Wilson Lake
64. Ozark Lake (Arkansas River Navigation System)
65. Baldhill Dam Lake Ashtabula
66. John W. Flannagan Dam and Reservoir
67. Fishtrap Lake
68. Buckhorn Lake
69. Fort Supply Lake
70. Fall River Lake
71. North Fork of Pound River Lake
72. Blue Mountain Lake
73. Hords Creek Lake
74. New Hogan Lake
75. George W. Andrews L & D (Chattahoochee River System)
76. Black Butte Lake
77. Cordell Hull Dam and Reservoir

(Unclassed Lakes)

1. Wolf Creek Dam Lake Cumberland
2. Black Warrior and Tombigbee Lakes (7 L&D)
3. Grenada Lake
4. Canyon Lake
5. Coyote Valley Dam Lake Mendocino
6. Green River Lake
7. Pat Mayse Lake
8. Lock and Dam #2 (Arkansas River Navigation System)

II. Class B Lakes

1. McNary Lock and Dam Lake Wallula
2. Mississippi River Pool 21
3. Pine River Lake
4. Gull Lake
5. Cape Cod Canal
6. Wister Lake
7. Pokegama Lake
8. Tygart Lake
9. Lake Winnibigoshish
10. Sandy Lake
11. Okatibbee Lake
12. Mississippi River Pool 17
13. Crooked Creek Lake
14. The Dallas Lock and Dam Lake Celilo
15. Mississippi River Pool 12
16. Toronto Lake
17. Mississippi River Pool 14
18. Mississippi River Pool 11
19. Elk City Lake
20. Conchas Lake
21. Loyalhanna Lake
22. Bayou Bodcau Reservoir
23. Dorena Lake
24. Francis E. Walter Dam
25. Hopkinton-Everett Lakes
26. Fall Creek Lake
27. Ohio River Mile 532 thru 981 (12 L & D)
28. East Brimfield Lake
29. Foster Lake
30. Hop Brook Lake
31. Mansfield Hollow Lake
32. Claiborne Lock and Dam (Alabama River)
33. Mississippi River Pool 20
34. Hills Creek Lake
35. Birch Hill Dam
36. Ice Harbor Lock and Dam Lake Sacajawea
37. Lock and Dam #3 (Arkansas River Navigation System)
38. Black Rock Lake
39. Conemaugh River Lake
40. East Branch Clarion River Lake
41. Mill Creek Lake
42. Surry Mountain Lake
43. Green Peter Lake
44. West Hill Dam
45. Lac Qui Parle Lake
46. Harry L. Englebright Lake
47. Westville Lake
48. John Martin Reservoir
49. Thomaston Dam
50. Colebrook River Lake

II. Class B Lakes (continued)

51. Franklin Falls Dam
52. Chief Joseph Dam and Lake Rufus Woods
53. Chouteau L & D (Arkansas River Navigation System)
54. Union Village Dam
55. Townshend Lake
56. Littleville Lake
57. North Springfield Lake
58. Blue River Lake
59. Lake Traverse
60. Abiquiu Dam
61. Northfield Brook Lake
62. Mud Mountain Project White River
63. Otter Brook Lake
64. Buffumville Lake
65. Eau Galle River Lake
66. Newt Graham L & D (Arkansas River Navigation System)
67. Hodges Village Dam
68. Mahoning Creek Lake
69. North Hartland Lake
70. Knightville Dam
71. Barre Falls Dam
72. Jemez Canyon Dam
73. Lookout Point Lake
74. Edward MacDowell Dam
75. Conant Brook Dam
76. Blackwater Dam
77. Ball Mountain Lake
78. Hancock Brook Lake
79. Wynoochee Lake
80. Orwell Lake
81. Martis Creek Lake
82. Cottonwood Springs Lake
83. Dworshak Dam and Lake

III. Class C Lakes

1. West Fork Mill Creek Lake
2. Deer Creek Lake
3. Kinzua Dam and Allegheny Reservoir
4. Mosquito Creek Lake
5. Sepulveda Dam
6. Hansen Dam
7. Monroe Lake
8. Whittier Narrows Lake
9. Atwood Lake
10. Berlin Lake

III. Class C Lakes (continued)

11. Delaware Lake
12. Charles Mill Lake
13. Dillon Lake
14. Cherry Creek Lake
15. Great Salt Plains Lake
16. Michael J. Kirwan Dam and Reservoir
17. Pleasant Hill Lake
18. Tom Jenkins Dam
19. Senecaville Lake
20. Mississinewa Lake
21. Mansfield Lake
22. Dexter Lake
23. Capt. Anthony Meldahl Locks and Dam (Ohio River)
24. Addicks Dam
25. Beltzville Lake
26. Detroit Lake
27. Brea Dam
28. Tappan Lake
29. Cagles Mill Lake
30. Leesville Lake
31. Piedmont Lake
32. Terminus Dam Lake Kaweah
33. Prado Dam
34. East Sidney Lake
35. Cougar Lake
36. Wallace Lake
37. Curwensville Lake
38. Mohawk Lake
39. Beech City Lake
40. Prompton Lake
41. Homme Lake
42. West Thompson Lake
43. Salinas Lake
44. Racine Locks and Dam (Ohio River)
45. Bowman Haley Lake
46. Bolivar Lake
47. Wills Creek Lake
48. Alamo Lake
49. Cold Brook Lake
50. Almond Lake
51. Tully Lake
52. Mohicanville Lake

IV. Class D Lakes

1. Okeechobee Waterway (4 Locks and Dams)
2. Mississippi River Pool 19
3. Mississippi River Pool 13
4. Mississippi River Pool 16
5. Mississippi River Pool 26
6. Lake Washington Ship Canal
7. Millers Ferry L & D William Bill Dannelly Reservoir
8. Mississippi River Pool 18
9. St. Marys River
10. Lock and Dam #4 (Arkansas River Navigation System)
11. Mississippi River Pool 15
12. Duluth Ship Canal and Harbor
13. David D. Terry L & D (Arkansas River Navigation System)
14. Mississippi River Pool 6
15. Mississippi River Pool 3
16. Mississippi River Pool 25
17. Mississippi River Pool 4
18. Mississippi River Pool 9
19. Mississippi River Pool 8
20. New Savannah Bluff Lock and Dam
21. Murray L & D (Arkansas River Navigation System)
22. Ohio River Mile 438 thru 532 (1 L&D)
23. Mississippi River Pool 10
24. Lock and Dam #5 (Arkansas River Navigation System)
25. Pearl River (3 Locks and Dams)
26. Cross Florida Barge Canal (2 Locks and Dams)
27. Mississippi River Pool 7
28. Kentucky River (Locks and Dams 1-14)
29. Ohio River Mile 0-127 (6 Locks and Dams)
30. Mississippi River Pool 2
31. Mississippi River Pool 24
32. Allegheny River System (Locks and Dams 1-8)
33. Little Goose Lock and Dam Lake Bryan
34. Mississippi River Pool 22
35. Mississippi River Pool 5A
36. Lower Monumental Lock and Dam
37. Lock and Dam #13 (Arkansas River Navigation System)
38. IWW Delaware River to Chesapeake Bay C & D Canal
39. Cape Fear River (Locks and Dams 1-3)
40. Lock and Dam #9 (Arkansas River Navigation System)
41. Monongahela Waterway (9 Locks and Dams)
42. Jones Bluff Lock and Dam (Alabama River)
43. W. D. Mayo L & D (Arkansas River Navigation System)
44. Green River (L & D 1-4 and Barren River L & D 1)
45. AIWW Albemarle and Chesapeake Canal
46. Greenup Locks and Dam (Ohio River)
47. Toad Such Ferry L & D (Arkansas River Navigation System)
48. Mississippi River Pool 5
49. Mississippi River Pool 1
50. Norrell L & D (Arkansas River Navigation System)

IV. Class D Lakes (continued)

51. Lower Keweenaw Entry Waterway
52. Winfield Lock and Dam (Kanawha River)
53. Gallipolis Locks and Dam (Ohio River)
54. Mississippi River Pool U&L St. Anthony Falls
55. Farmdale Dam
56. Bonnet Carre Floodway
57. Mojave River Dam
58. Starved Rock Lock and Dam (Illinois Waterway)
59. Belleville Locks and Dam (Ohio River)
60. Sturgeon Bay and Lake Michigan Ship Canal
61. Lock and Dam #16 (Ohio River)
62. Lock and Dam #17 (Ohio River)
63. Dresden Island Lock and Dam (Illinois Waterway)
64. Marmet Locks and Dam (Kanawha River)
65. Marseilles Lock and Canal (Illinois Waterway)
66. La Grange Lock and Dam (Illinois Waterway)
67. Brandon Road Lock and Dam (Illinois Waterway)
68. Lock and Dam # 15 (Ohio River)
69. Peoria Lock and Dam (Illinois Waterway)
70. London Locks and Dam (Kanawha River)
71. Menasha Lock and Dam (Lower Fox River)
72. Galisteo Dam
73. Bonneville Lock and Dam Lake Bonneville



| <u>TIMBER</u>                                                                                                                                             |               | <u>PROPERTY</u>                                                                                                  |               | <u>LIVESTOCK AND<br/>LIVESTOCK USE</u>                                                                                                                                                                                          |              | <u>HUNTING AND FISHING</u>                                                              |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------|---------------|
| <u>Federal Law</u><br>(18 U.S.C. 1852)<br>Cutting, wantonly<br>destroying timber<br>from lands of the<br>U.S.                                             |               | Damaging and leav-<br>ing in damaged con-<br>ditions roads or<br>trails.                                         | 6,443         | <u>Federal Law</u><br>(18 U.S.C. 1857) Open-<br>ing or destroying gate<br>or fence enclosing U.S.<br>lands; driving live-<br>stock upon such lands<br>enclosed; knowingly per-<br>mit livestock to enter<br>any such enclosure. | 1,082        | Hunting, fishing,<br>possession of fire-<br>arms, etc., in vio-<br>lation of State law. | 27,088        |
| (18 U.S.C. 1853)<br>Unlawfully cutting<br>or wantonly injuring<br>or destroying any<br>tree upon the lands<br>of the U.S.                                 | 3,723         | Destroying, molest-<br>ing, disturbing or<br>injuring property<br>or going on N.F. land<br>with intent to do so. | 12,169        |                                                                                                                                                                                                                                 |              | Permitting dogs to<br>run at large in<br>violation of State<br>law.                     | 1,947         |
|                                                                                                                                                           | 5,665         | Tearing down or de-<br>facing Forest Serv-<br>ice notices.                                                       | 15,211        | <u>Secretary's Regulations</u><br>Grazing use of lands<br>not under permit or<br>agreement.                                                                                                                                     | 2,065        |                                                                                         |               |
| <u>Secretary's Reg-<br/>ulations</u> Cutting<br>or otherwise damag-<br>ing or removing any<br>timber except as auth-<br>orized by law or reg-<br>ulation. |               | Entering or using<br>F.S. building with-<br>out permission.                                                      | 830           | Grazing of livestock<br>within an area closed<br>to the grazing of that<br>kind of livestock.                                                                                                                                   | 395          |                                                                                         |               |
|                                                                                                                                                           | 2,302         | Leaving F.S. building<br>in unsanitary condition.                                                                | 1,705         | Allowing livestock not<br>exempt from grazing or<br>agreement to drift onto and<br>graze such lands without<br>permit or agreement.                                                                                             | 2,748        |                                                                                         |               |
| Removing any timber<br>cut under contract of<br>sale or permit before<br>scaling.                                                                         | 1,485         | Defacing or destroy-<br>ing objects of natural<br>beauty or scenic value.                                        | 3,665         | Refusal to remove unper-<br>mitted nonexempt live-<br>stock upon instructions<br>from an authorized Forest<br>Officer.                                                                                                          | 256          |                                                                                         |               |
| Fraudulent marking or<br>identifying U.S. tim-<br>ber for cutting or<br>removal.                                                                          | 33            | Using prohibited ve-<br>hicles during road<br>or trail closure.                                                  | 1,306         |                                                                                                                                                                                                                                 |              |                                                                                         |               |
| Damaging or cutting<br>under any contract of<br>sale or permit any liv-<br>ing tree before it is<br>designated for cutting<br>by a Forest Officer.        | 2,302         | Using prohibited ve-<br>hicles in cross-<br>country travel during<br>periods of closure to<br>such vehicles.     | 1,077         |                                                                                                                                                                                                                                 |              |                                                                                         |               |
| <b>TOTAL</b>                                                                                                                                              | <b>27,302</b> | <b>TOTAL</b>                                                                                                     | <b>42,406</b> | <b>TOTAL</b>                                                                                                                                                                                                                    | <b>6,546</b> | <b>TOTAL</b>                                                                            | <b>29,035</b> |

VIOLATIONS OCCURRING IN  
U.S. FORESTS, 1969

Source: U.S. Forest Service

FEDERAL PROPERTY  
LAWS

(18 U.S.C. 641)  
stealing public money,  
property, or records.

(18 U.S.C. 1362)  
Damage to Communi-  
cations lines, stations  
or systems.

743 FIRE  
Federal Laws  
(18 U.S.C. 1855)  
Willful fire setting  
on U.S. land.

218 (18 U.S.C. 1856)  
Fire in or near U.S.  
Lands left unattended,  
abandoned or allowed to  
spread beyond control.

(18 U.S.C. 1863)  
Unlawful entry on any  
N.F. land closed to  
the public by Secretary  
Regulation.

Secretary's Regulation  
Campfire Regulations

Smoking-Throwing burn-  
ing cigarette or similar  
substance in any place  
where it may start a  
fire.

Regional Forester  
designated fire hazard  
areas.

Timber Sales-Engines  
without approved spark  
arrestors.

Setting Unauthorized  
fires.

Possessing or firing  
tracer materials.

Use of vehicle without  
efficient exhaust and  
muffler.

Use of vehicle without  
efficient exhaust  
and muffler. 5,364

OCCUPANCY AND OTHER USE

Unsanitary camp refuse,  
littering lands,  
polluting water. 216,877

Constructing structures,  
fences, etc., business  
without permit. 8,372

Discharging firearms  
endangering other  
users. 7,097

Speeding or noisy  
motorboats. 6,065

Squatting or making  
settlement. 2,668

Violating special  
restrictions posted  
by Forest Supervisor 1,885

Vehicles or other  
objects impeding or  
hazard to other users. 1,039

Unauthorized stock in  
designated tourist  
pasture. 669

Entering area closed by  
Chief or Regional  
Forester. 679

Noncompliance with  
posted wilderness  
requirements. 200

DEVELOPED RECREATION  
AND PUBLIC USE AREAS

Sanitation violations  
of facilities and  
grounds, littering. 389,114

Vehicles - Speeding,  
parking, safety, noise,  
and disruption. 95,198

Miscellaneous  
violations of con-  
duct and use. 77,451

Non-payment of  
designated recreation  
use fee. 67,379

Public behavior - boisterous,  
abusive, indecent conduct.  
Preservation of public  
property and resources - des-  
troying, defacing property or  
natural features, discharging  
firearms, etc. 37,748

Audio devices disturbing  
other users. 6,629

TOTAL

961

TOTAL

177,991

TOTAL

245,551

TOTAL

673,519

HQ AR004950

A

HQ AR004951-HQ AR004953

| State        | County  | Location                | Map No.          | State map repository | Local map repository                                                                  | Effective date of authorization of sale of flood insurance for area |
|--------------|---------|-------------------------|------------------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Pennsylvania | Lebanon | Jonestown, Borough of   | H 42 075 4020 01 | do                   | Lebanon Municipal Bldg., 409 South Eighth St., Lebanon, PA 17038.                     | Mar. 30, 1973                                                       |
| Do           | Luzerne | Forty Fort, Borough of  | H 42 079 2900 01 | do                   | Forty Fort Municipal Bldg., Corner Wyoming Ave. and River St., Forty Fort, Pa. 18704. | Do.                                                                 |
| Do           | do      | Plymouth, Borough of    | H 42 079 0600 01 | do                   | Plymouth Borough Bldg., 162 West Shawnee Ave., Plymouth, PA 18651.                    | Do.                                                                 |
| Do           | do      | Shickshinny, Borough of | H 42 079 7630 01 | do                   | Borough of Shickshinny, 5 McClintock St., Shickshinny, PA 18655.                      | Do.                                                                 |

(National Flood Insurance Act of 1968 (title XIII of the Housing and Urban Development Act of 1968), effective Jan. 28, 1969 (33 FR 17804, Nov. 28, 1968), as amended (secs. 408-410, Public Law 91-152, Dec. 24, 1969), 42 U.S.C. 4001-4127; and Secretary's delegation of authority to Federal Insurance Administrator, 34 FR 2680, Feb. 27, 1969)

Issued: March 16, 1973.

GEORGE K. BERNSTEIN,  
Federal Insurance Administrator.

[FR Doc.73-5508 Filed 3-22-73;8:46 am]

## Title 36—Parks, Forests, and Memorials

### CHAPTER III—CORPS ENGINEERS, DEPARTMENT OF THE ARMY

#### PART 311—PUBLIC USE OF CERTAIN LAKES AND RESERVOIR AREAS

#### PART 326—PUBLIC USE OF CERTAIN NAVIGABLE LAKES AND RESERVOIR AREAS

#### PART 327—RULES AND REGULATIONS GOVERNING PUBLIC USE OF WATER RESOURCE DEVELOPMENT PROJECTS ADMINISTERED BY THE CHIEF OF ENGINEERS

Rules and Regulations Governing Public Use of Water Resource Development Projects Administered by the Chief of Engineers set forth in Part 327 below supersede Parts 311 and 326. Increased public use at these projects, changing patterns of recreation activity, and increased public interest made it necessary to amend the rules and regulations as set forth below in the interest of more effective recreation-resource management of the lake and reservoir projects.

Sec.

- 327.0 Applicability.
- 327.1 Policy.
- 327.2 Motor vehicles.
- 327.3 Vessels.
- 327.4 Aircraft.
- 327.5 Swimming.
- 327.6 Picnicking.
- 327.7 Camping.
- 327.8 Hunting, fishing and trapping.
- 327.9 Sanitation.
- 327.10 Fires.
- 327.11 Control of horses, dogs, cats, and pets.
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- 327.23 Outgranted lands.
- 327.24 Indian lands.
- 327.25 Special recreation use fees. [Reserved]
- 327.26 Interference with Government employees.
- 327.27 Violation of rules and regulations.

**AUTHORITY:** Sec. 4, Act of December 22, 1944, 54 Stat. 899, as amended, 16 U.S.C. 460d; Public Law 90-483, 82 Stat. 748; and Public Law 92-347, 86 Stat. 459.

#### § 327.0 Applicability.

The regulations covered in this Part 327 shall be applicable to all water resource development projects administered by the Chief of Engineers. All other Federal, State, and local laws and regulations remain in full force and effect where applicable to those water resource development projects. These regulations do not apply to those water resource development projects regulated jointly with other Federal agencies to which Parts 313 and 322, Chapter III, Title 36, Code of Federal Regulations apply.

#### § 327.1 Policy.

(a) It is the policy of the Secretary of the Army acting through the Chief of Engineers to provide the public with safe and healthful recreational opportunities within all water resource development projects administered by the Chief of Engineers.

(b) Unless otherwise indicated herein, the term "District Engineer" shall include the authorized representatives of the District Engineer.

(c) All water resource development projects open for recreational use shall be available to the public without regard to sex, race, creed, color, or national origin. No lessee, licensee, or concessionaire providing a service to the public shall discriminate against any person or persons because of sex, race, creed, color, or national origin in the conduct of his operations under the lease, license, or concession contract.

#### § 327.2 Motor vehicles.

(a) The operation and parking of motor vehicles, including off-road vehicles as set forth in paragraph (b) of this section, is prohibited on roadways of water resource development projects at those locations and at times designated by the District Engineer and marked by the posting of appropriate signs.

(b) The operation of off-road vehicles including but not limited to motorcycles, minibikes, trail bikes, snowmobiles, dune

buggies, all terrain vehicles, and other motor vehicles designed for or capable of cross-country travel on natural terrain, when operated off the roadways of water resource development projects is prohibited except at locations and at times designated by the District Engineers and marked by the posting of appropriate signs.

(c) No person shall operate any motor vehicle including off-road vehicles in a careless, negligent, or reckless manner so as to endanger any person or property.

#### § 327.3 Vessels.

(a) It shall be a violation of these regulations to operate any vessel for a fee or profit upon the waters of water resource development projects unless such operation is authorized by lease, license or concession contract with the Department of the Army. This paragraph shall not apply to the operation of vessels upon navigable waters of the United States.

(b) No vessel shall be operated in prohibited areas of a lake, reservoir, or other body of water. Such areas shall be designated by the District Engineer and marked by the posting of appropriate signs.

(c) No person shall operate any vessel or manipulate any water skis or other similar device in a careless, negligent, or reckless manner so as to endanger any person or property.

(d) The construction of floating or stationary mooring facilities or any other structure of any kind in the lake, reservoir, or other body of water is prohibited unless a permit therefor has been issued by the District Engineer. No habitation of such facilities will be permitted.

(e) All vessels when not in actual use shall be removed from the lake, reservoir, or other body of water unless securely moored at mooring facilities permitted by the District Engineer.

#### § 327.4 Aircraft.

(a) The operation of aircraft on lands or waters other than at the landing areas designated by the District Engineer is prohibited. Such designated areas shall be marked by the posting of appropriate signs.

(b) Except in extreme emergencies involving the safety of human life or threat of serious property loss, the air delivery of any person or thing by parachute, helicopter, or other means without written permission of the District Engineer is prohibited.

(c) The provisions of this section shall not be applicable to aircraft engaged on official business of the Federal Government or used in emergency rescue in accordance with the directions of the District Engineer or forced to land due to circumstances beyond the control of the operator.

#### § 327.5 Swimming.

Swimming, snorkeling, or scuba diving is permitted, except in those areas of the lake, reservoir, or other body of water designated by the District Engineer and marked by the posting of appropriate signs.

#### § 327.6 Picnicking.

Picnicking is permitted, except in those areas designated by the District Engineer and marked by the posting of appropriate signs.

#### § 327.7 Camping.

(a) Camping is prohibited except in areas designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs.

(b) Camping at a fee site without payment of designated fees as set forth in § 327.25 is prohibited.

(c) The length of stay at all campgrounds shall be limited to 14 consecutive days. Occupancy of any campsite for a period greater than 14 consecutive days is prohibited without written permission of the District Engineer.

(d) Camping equipment or other property left unattended at a campsite for the purpose of holding the site for future occupancy is prohibited.

(e) The digging or leveling of any ground or the construction of any facility without written permission of the District Engineer is prohibited.

(f) Camping equipment shall be completely removed and the sites cleaned before the departure of the campers.

#### § 327.8 Hunting, fishing, and trapping.

(a) Hunting, fishing, and trapping are prohibited in areas designated by the District Engineer. Such restricted areas shall be marked by the posting of appropriate signs.

#### § 327.9 Sanitation.

(a) Dumping or disposal in any manner of refuse, garbage, rubbish, trash, debris, or litter of any kind into the waters of or onto any land federally owned and administered by the Chief of Engineers is prohibited except at locations and in receptacles provided for such purposes.

(b) It shall be a violation to bring onto any water resource development project any refuse, garbage, rubbish, trash, debris, or litter of any kind for dumping or in any other manner dis-

posing of such refuse, garbage, rubbish, trash, debris, or litter of any kind into the waters of or onto any land federally owned and administered by the Chief of Engineers.

#### § 327.10 Fires.

(a) Gasoline and other fuels, except that which is contained in storage tanks of vehicles, vessels, camping equipment, or hand portable containers shall not be stored within the water resource development project areas without written permission of the District Engineer.

(b) Fires shall be confined to fireplaces, grills, or other facilities designed for this purpose and shall in addition be confined to those areas designated by the District Engineer.

(c) The gathering of wood for use as fuel at campsites or picnic areas is prohibited except for the gathering of dead material on the ground.

#### § 327.11 Control of horses, dogs, cats, and pets.

(a) No person shall bring or have horses in camping, picnic, swimming, beach, or other similar areas, or developed recreation areas.

(b) No person shall bring dogs, cats, or other pets into developed recreation areas unless penned, caged, on a leash no longer than 6 feet in length, or otherwise under physical restrictive controls at all times.

#### § 327.12 Restrictions.

(a) The District Engineer may establish a reasonable schedule of visiting hours for all or portions of a project area and close or restrict the public use of all or any portion of a project by the posting of appropriate signs indicating the extent and scope of closure. All persons shall observe such posted restrictions.

(b) Quiet shall be maintained in all public use areas between the hours of 10 p.m. and 6 a.m. Excessive noise during such times which unreasonably disturbs persons is prohibited.

(c) The operation or use of any audio or other noise producing device including but not limited to communications media and motorized equipment or vehicles in such a manner as to unreasonably annoy or endanger persons is prohibited.

#### § 327.13 Explosives, firearms, other weapons, and fireworks.

(a) The possession of loaded firearms, ammunition, projectile firing devices, bows and arrows, cross bows, and explosives of any kind is prohibited unless:

(1) In the possession of a law enforcement officer or Government employee on official duty; (2) used for hunting or fishing during the hunting or fishing season as permitted under § 327.8, or (3) unless written permission has been received from the District Engineer.

(b) The possession or use of fireworks is prohibited unless written permission has been received from the District Engineer.

#### § 327.14 Public property.

Destruction, injury, defacement, or removal of public property including natural formations, historical and archaeological features, and vegetative growth is prohibited without written permission of the District Engineer.

#### § 327.15 Abandonment of personal property.

(a) Abandonment of personal property is prohibited. Personal property shall not be left unattended upon the lands or waters of the project except in accordance with these regulations. After a period of 24 hours, abandoned or unattended personal property shall be impounded and stored at a storage point designated by the District Engineer. The District Engineer shall assess a reasonable impoundment fee, which shall be paid before the impounded property is returned to its owners.

(b) The District Engineer shall by public or private sale or otherwise, dispose of all lost, abandoned, or unclaimed personal property that comes into his custody or control. However, property may not be disposed of until diligent effort has been made to find the owner, his heirs or next of kin, or his legal representative. If the owner, his heirs or next of kin, or his legal representative is determined but not found, the property may not be disposed of until the expiration of 120 days after the date when notice, giving the time and place of the intended sale or other disposition, has been sent by certified or registered mail to that person at his last known address. When diligent effort to determine the owner, his heirs or next of kin, or his legal representatives is unsuccessful, the property may be disposed of without delay, except that if it has a fair market value of \$25 or more the property may not be disposed of until 3 months after the date it is received at the storage point designated by the District Engineer. The net proceeds from the sale of property shall be covered into the Treasury of the United States as miscellaneous receipts.

#### § 327.16 Lost and found articles.

All lost articles shall be deposited by the finder at the Resource Manager's Office or with a ranger. The finder shall leave his name, address and phone number. All lost articles shall be disposed of in accordance with the procedures set forth in § 327.17.

#### § 327.17 Advertisement.

Advertising by the use of billboards, signs, markers, audio devices, or any other means whatever is prohibited unless written permission has been received from the District Engineer.

#### § 327.18 Commercial activities.

The engaging in or solicitation of business without the express written agreement of the District Engineer is prohibited.

#### § 327.19 Permits.

(a) It shall be a violation of these regulations to refuse to comply with the



terms or conditions of any permit issued under the provisions of this regulation by the District Engineer.

(b) (1) Permits for floating structures of any kind in waters of water resources development projects whether or not such waters are deemed navigable waters of the United States but where such waters are under the management of a Corps of Engineers lake Resources Manager shall be issued under the authority of this regulation. District Engineers will delineate those portions of the navigable waters of the United States where this provision is applicable and post notices of this designation, in the vicinity of the lake Resource Managers Office.

(2) Permits for nonfloating structures of any kind constructed, placed in, or affecting waters of water resource development projects where such waters are deemed navigable waters of the United States shall be issued under the provisions of section 10 of the Act approved March 3, 1899, and § 209.120 of Title 33, Code of Federal Regulations.

(3) Permits for nonfloating structures of any kind in waters of water resources development projects where such waters are under the management of a Corps of Engineers lake Resources Manager and where such waters are not deemed navigable waters of the United States shall be issued as set forth in subparagraph (1) of this paragraph.

#### § 327.20 Unauthorized structures.

The construction or placing of any structure of any kind under, upon, or over the project lands or waters is prohibited unless a permit therefor has been issued by the District Engineer. Structures not under permit are subject to summary removal by the District Engineer.

#### § 327.21 Special events.

Special events such as water carnivals, boat regattas, music festivals, dramatic presentations, or other special recreation programs are prohibited unless a permit therefor has been issued by the District Engineer. The public shall not be charged any fee by the sponsor of such event unless the District Engineer has approved in writing the proposed schedule of fees.

#### § 327.22 Unauthorized occupation of lands.

(a) Occupying any lands, buildings, or other facilities within water resource development projects for the purpose of maintaining same as a residence without the written authorization of the District Engineer is prohibited. The provisions of this section shall not apply to the occupation of lands for the purpose of camping in accordance with the provisions of § 327.7.

(b) The ranging, grazing, or watering of livestock on lands of water resource development projects administered by the Corps of Engineers is prohibited except when authorized by lease, license, or other agreement with the District Engineer.

(c) Unless otherwise authorized by law, use of project lands or waters for agricultural purposes is prohibited except when authorized by lease, license, or other agreement by the District Engineer.

#### § 327.23 Outgranted lands.

Applicable laws and regulations of State and local governments shall be deemed to apply on project lands or waters which are outgranted by the District Engineer by lease, license, or other written agreement to State and local governments; *Provided, however,* That the regulations in this Part 327 are deemed to apply to such outgranted project lands and waters as a minimum regulatory requirement.

#### § 327.24 Indian lands.

The regulations in this Part 327 shall be deemed to apply to those lands and waters which are subject to treaties and Federal laws and regulations concerning the rights of Indian Nations and which lands and waters are incorporated, in whole or in part, within water resource development projects administered by the Chief of Engineers to the extent that the regulations in this Part 327 are not inconsistent with such treaties and Federal laws and regulations.

#### § 327.25 Special recreation use fees. [Reserved]

#### § 327.26 Interference with Government employees.

Interference with any Government employee in the conduct of his official duties pertaining to the administration of these regulations is prohibited.

#### § 327.27 Violation of rules and regulations.

Except for violations coming within the scope of § 327.25 in accordance with section 234 of the River and Harbor Act of 1970 (84 Stat. 1818, 16 U.S.C. 460d, as amended), violations of the provisions of this regulation shall subject the violator to a fine of not more than \$500 or imprisonment for not more than 6 months, or both. Any person charged with such violation may be tried and sentenced in accordance with the provisions of section 3401 of title 18, United States Code. All persons designated by the Chief of Engineers for that purpose shall have the authority to issue a citation for violation of these regulations, requiring the appearance of any person charged with violation to appear before the U.S. magistrate within whose jurisdiction the water resource development project is located for trial.

(Sec. 4, 58 Stat. 889, as amended; 16 U.S.C. 460d)

ROBERT F. FROEHLKE,  
*Secretary of the Army.*

MARCH 16, 1973.

[FR Doc.73-5608 Filed 3-22-73;8:45 am]

## Title 40—Protection of Environment

### CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

#### SUBCHAPTER C—AIR PROGRAMS

### PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

#### Sulfur Dioxide Emissions in Arizona, New Mexico, and Utah

On May 31, 1972 (37 FR 10842), pursuant to section 110 of the Clean Air Act and 40 CFR Part 51, the Administrator approved, with specific exceptions, plans for implementation of the national ambient air quality standards submitted by Arizona, New Mexico, and Utah. On July 27, 1972 (37 FR 15094), the Administrator proposed regulations to correct deficiencies in the regulatory provisions of the plans for these States. This publication sets forth final regulations limiting sulfur dioxide emissions and providing for compliance with such limitations with respect to four large electric powerplants in the three States. Particulate emission limitations also are being promulgated for the powerplant in Utah. Other deficiencies remaining in the plans for these three States will be corrected by regulations to be promulgated in the near future.

Three of the affected powerplants are not yet operating, but are presently under construction and, therefore, are not subject to the new source review procedures required by 40 CFR 51.18. Naturally, there are no measured air quality data which reflect the impact of the sources under construction. Limited air quality data are available around the powerplant presently in operation, but sampling sites have not been located in areas which diffusion calculations indicate will receive the maximum impact of the powerplant emissions.

In the absence of adequate measured air quality data, diffusion models were used to make estimates of the impact of the powerplant emissions on air quality. It is recognized that available diffusion models, when used to make such estimates for rugged terrain situations such as exist around these four plants, may be subject to error in their ability to predict ground level concentrations. There is a substantial difference in the predictions obtained from different models. It is the Administrator's judgment, however, that the diffusion model employed by the National Oceanic and Atmospheric Administration (NOAA) for purposes of the Southwest Energy Study is based on reasonable assumptions regarding meteorological and topographical factors and on valid computational techniques. Therefore, while predictions obtained from unvalidated models are not regarded as a sufficient basis for determining the exact degree of emissions control necessary for attainment and maintenance of national ambient air quality standards in an area of rough terrain, it is the Administrator's judgment that the NOAA model has sufficiently sound technical basis to justify the conclusion that its predictions are

HQ AR004954-HQ AR004956

## PROPOSED RULE MAKING

|                                                                                              |         |
|----------------------------------------------------------------------------------------------|---------|
| (2) Y's profit under combined taxable income method (before application of loss limitation): |         |
| (a) 50 percent of combined taxable income.....                                               | \$1,175 |
| (b) Y's profit.....                                                                          | 1,175   |
| (3) Y's profit under gross receipts method (before application of loss limitation):          |         |
| (a) 4 percent of Y's sublease rental receipts for year (4% of \$3,600).....                  | 144     |
| (b) Y's profit.....                                                                          | 144     |
| (4) Y's profit under section 482 method:                                                     |         |
| (a) Y's sublease rental receipts for year.....                                               | 3,600   |
| (b) Less: Y's lease rental payments for year.....                                            | 3,000   |
| (c) Y's profit.....                                                                          | 600     |

[FR Doc.72-16139 Filed 9-20-72;8:52 am]

## DEPARTMENT OF THE ARMY

## Corps of Engineers

[ 36 CFR Parts 311, 326, 327 ]

## PUBLIC USE OF WATER RESOURCE DEVELOPMENT PROJECTS ADMINISTERED BY CHIEF OF ENGINEERS

## Notice of Proposed Rule Making

AUGUST 28, 1972.

Notice is hereby given that the regulations set forth in tentative form below superseding Parts 311 and 326 is proposed by the Secretary of the Army (acting through the Chief of Engineers). The proposed regulation is in the interest of more effective recreation-resource management of the lake and reservoir projects.

Prior to adoption of the proposed regulation, consideration will be given to any comment, suggestion or objections thereto which are submitted in writing to: HQDA (DAEN-CWO-R), Washington, D.C. 20314, within a period of 45 days from the date of publication of this notice in the FEDERAL REGISTER.

For the Chief of Engineers.

J. W. MORRIS,  
Major General, U.S. Army,  
Director of Civil Works.

## PART 327—RULES AND REGULATIONS GOVERNING PUBLIC USE OF WATER RESOURCE DEVELOPMENT PROJECTS ADMINISTERED BY THE CHIEF OF ENGINEERS

|        |                                                    |
|--------|----------------------------------------------------|
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| 327.3  | Vessels.                                           |
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| Sec.   |                                         |
| 327.16 | Lost and found articles.                |
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| 327.21 | Unauthorized occupation of lands.       |
| 327.22 | Interference with Government employees. |
| 327.23 | Violation of rules and regulations.     |

**AUTHORITY:** The provisions of this Part 327 issued under the authority of section 4 of the Act of December 22, 1944, 54 Stat. 899, as amended; 16 U.S.C. 460d.

**APPLICABILITY:** The regulations covered in this part shall be applicable to all water resource development projects administered by the Chief of Engineers.

## § 327.1 Policy.

(a) It is the policy of the Secretary of the Army acting through the Chief of Engineers to provide the public with safe and healthful recreational opportunities within the geographic boundaries of all water resource development projects administered by the Chief of Engineers.

(b) Recreational use by the public at all Corps of Engineers water resource development projects shall be subject to the regulations prescribed in this part.

(c) Unless otherwise indicated in this part, the term "District Engineer" shall include the authorized representatives of the District Engineer.

(d) All water resource development projects open for recreational use shall be available to the public without regard to sex, race, creed, color, or national origin. No lessee, licensee, or concessionaire providing a service to the public shall discriminate against any person or persons because of sex, race, creed, color, or national origin in the conduct of his operations under the lease, license, or concession contract.

## § 327.2 Motor vehicles.

(a) The operation of motor vehicles including off-road vehicles as set forth in paragraph (b) of this section, is prohibited on roadways of water resource development projects at locations and at times designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs. Vehicle operation shall be subject to applicable Federal, State, and local laws and regulations.

(b) The operation of off-road vehicles including but not limited to motorcycles,

minibikes, trail bikes, snowmobiles, dune buggies, all terrain vehicles, and other motor vehicles designed for or capable of cross-country travel on natural terrain, when operated off the roadways of water resource development projects is prohibited except at locations and at times designated by the District Engineers. Such designated areas shall be marked by the posting of appropriate signs. Vehicle operation shall be subject to applicable, Federal, State, and local laws and regulations.

(c) No person shall operate any motor vehicle including off-road vehicles in a careless, negligent or reckless manner so as to endanger any person or property.

## § 327.3 Vessels.

(a) It shall be a violation of the regulations in this section to operate any vessel for a fee or profit upon the waters of resource development projects unless such operation is authorized by lease, license or concession contract with the Department of the Army. This paragraph shall not apply to the operation of vessels upon navigable waters of the United States.

(b) No vessel shall be operated in prohibited areas of a lake, reservoir, or other body of water. Such areas shall be designated by the District Engineer and marked by the posting of appropriate signs.

(c) No person shall operate any vessel or manipulate any water skis or other similar device in a careless, negligent, or reckless manner so as to endanger any person or property.

(d) The construction of floating or stationary mooring facilities or any other structure of any kind in the lake, reservoir, or other body of water is prohibited unless a permit therefor has been issued by the District Engineer. No habitation of such facilities will be permitted.

(e) All vessels when not in actual use shall be removed from the lake, reservoir, or other body of water unless securely moored at mooring facilities designated by the District Engineer marked by the posting of appropriate signs.

## § 327.4 Aircraft.

(a) The operation of aircraft shall be in accordance with all applicable Federal, State, and local laws and regulations.

(b) The operation of aircraft on lands or waters other than at the landing areas designated by the District Engineer is prohibited. Such designated areas shall be marked by the posting of appropriate signs.

(c) Except in extreme emergencies involving the safety of human life or threat of serious property loss, the air delivery of any person or thing by parachute, helicopter, or other means without a permit from the District Engineer is prohibited.

(d) The provisions of this section shall not be applicable to aircraft engaged on official business of the Federal Government or used in emergency rescue in accordance with the directions of the District Engineer or forced to land due to



circumstances beyond the control of the operator.

#### § 327.5 Swimming.

Swimming, snorkling or scuba diving is prohibited in areas of the lake, reservoir or other body of water designated by the District Engineer and marked by the posting of appropriate signs.

#### § 327.6 Picnicking.

Picnicking is prohibited in areas designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs.

#### § 327.7 Camping.

(a) Camping is prohibited in areas designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs.

(b) Camping at a designated fee site without a permit from the District Engineer is prohibited.

(c) The length of stay at all campsites shall be limited to 14 consecutive days. Occupancy of any campsite for a period greater than 14 consecutive days is prohibited unless a permit therefor has been obtained from the District Engineer.

(d) Camping equipment left unattended at a campsite for the purpose of holding the site for future occupancy is prohibited.

(e) The digging or leveling of any ground or the construction of any facility without a permit from the District Engineer is prohibited.

(f) Camping equipment shall be completely removed and the sites cleaned before the departure of the campers.

#### § 327.8 Hunting, fishing, and trapping.

(a) Hunting, fishing, and trapping is prohibited in areas designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs. Hunting, fishing, and trapping shall be subject to all applicable Federal, State, and local laws and regulations.

(b) The construction of a duck blind is prohibited unless a permit therefor has been issued by the District Engineer.

#### § 327.9 Sanitation.

Dumping or disposal in any manner of refuse, garbage, rubbish, trash, debris, or litter of any kind into the waters of or onto any land federally owned and administered by the Chief of Engineers is prohibited except at locations and in receptacles provided for such purposes.

#### § 327.10 Fires.

(a) Gasoline and other fuels, except that which is contained in storage tanks of vehicles, vessels, camping equipment, or hand portable containers shall not be stored within the water resource development project area unless a permit therefor has been issued by the District Engineer.

(b) Open fires are prohibited except at campsites, picnic areas and other areas designated by the District Engineer. Such areas shall be marked by the posting of appropriate signs.

(c) The gathering of wood for use as fuel at campsites or picnic areas is prohibited except for the gathering of dead material on the ground.

#### § 327.11 Control of horses, dogs, cats, and pets.

(a) Horses are prohibited in camping, picnic, swimming beach areas. Horses are prohibited in other areas as designated by the District Engineer and marked by the posting of appropriate signs.

(b) Dogs, cats, and other pets are prohibited in areas as may be designated by the District Engineer. Such designated areas shall be marked by the posting of appropriate signs. In developed recreation areas where dogs, cats, and other pets are permitted such animals shall be caged, penned, on a leash no longer than 6 feet in length or otherwise under physical restrictive control at all times.

#### § 327.12 Restrictions.

(a) The District Engineer may establish a reasonable schedule of visiting hours for all or portions of a project area and close or restrict the public use of all or any portion of a project by the posting of appropriate signs indicating the extent and scope of closure. All persons shall observe such posted restrictions.

(b) Quiet shall be maintained in all public use areas between the hours of 10 p.m. and 6 a.m. Excessive noise during such times which unreasonably disturbs or endangers persons is prohibited.

(c) The operation or use of any audio or other noise producing device including but not limited to communications media and motorized equipment or vehicles in such a manner as to unreasonably annoy or endanger persons is prohibited.

#### § 327.13 Explosives, firearms, other weapons and fireworks.

(a) The possession of firearms, ammunition, and projectile firing devices, bows and arrows, crossbows, and explosives of any kind is prohibited unless: (1) In the possession of a law enforcement officer or Government employee on official duty; (2) used for hunting during the hunting season as permitted under § 327.8; or (3) a permit therefor has been issued by the District Engineer.

(b) The possession and use of fireworks is prohibited unless a permit therefor has been issued by the District Engineer.

#### § 327.14 Public property.

Destruction, injury, defacement, or removal of public property including natural formations, historical and archeological features, and vegetative growth is prohibited without written permission of the District Engineer.

#### § 327.15 Abandonment of personal property.

(a) Abandonment of personal property is prohibited. Personal property shall not be left unattended upon the lands or waters of the project except in

accordance with this part. After a period of 24 hours, abandoned or unattended personal property shall be impounded and stored at a storage point designated by the District Engineer. The District Engineer shall assess a reasonable impoundment fee, which shall be paid before the impounded property is returned to its owners.

(b) The District Engineer shall by public or private sale or otherwise, dispose of all lost, abandoned, or unclaimed personal property that comes into his custody or control. However, property may not be disposed of until diligent effort has been made to find the owner, his heirs or next of kin, or his legal representative. If the owner, his heirs or next of kin, or his legal representative is determined but not found, the property may not be disposed of until the expiration of 120 days after the date when notice, giving the time and place of the intended sale or other disposition, has been sent by certified or registered mail to that person at his last known address. When diligent effort to determine the owner, his heirs or next of kin, or his legal representatives is unsuccessful, the property may be disposed of without delay, except that if it has a fair market value of \$25 or more the property may not be disposed of until 3 months after the date it is received at the storage point designated by the District Engineer. The net proceeds from the sale of property shall be covered into the Treasury of the United States as miscellaneous receipts.

#### § 327.16 Lost and found articles.

All lost articles shall be deposited by the finder at the Resource Manager's Office or with a Ranger. The finder shall leave his name, address, and phone number. If not reclaimed by the owners within a period of 120 days, lost articles shall be given over to the finders.

#### § 327.17 Advertisement.

The advertising of any event or the solicitation of business by the use of billboards, signs, markers, audio devices, or any other means whatever is prohibited unless a permit therefor has been issued by the District Engineer.

#### § 327.18 Permits.

It shall be a violation of the regulations in this part to refuse to comply with the terms or conditions of any permit, lease, license, or concession contract issued or entered into under the provisions of this part by the District Engineer. Permits for any structures of the floating type in lakes or reservoirs operated by the Corps of Engineers for recreation purposes shall be issued under these provisions. Permits for any structures of the nonfloating type or any other structures constructed or placed in waters of water resource development projects deemed navigable shall be issued under the provisions of section 10 of Rivers and Harbors Act of 1899 and § 209.120 of Title 33 Code of Federal Regulations. Any permits issued under the authority of this part shall be processed in accordance with and in a

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## PROPOSED RULE MAKING

manner provided by ER 1130-2-333, copies of which are available for review by the public at district and division offices.

#### § 327.19 Unauthorized structures.

The construction of any structure of any kind under, upon, or over the land or waters is prohibited unless a permit therefor has been issued by the District Engineer.

#### § 327.20 Special events.

Special events such as water carnivals, boat regattas, music festivals, dramatic presentations, or other special recreational programs are prohibited unless a permit therefor has been issued by the District Engineer. The public shall not be charged any fee by the sponsor of such event unless the District Engineer has approved in writing the proposed schedule of fees.

#### § 327.21 Unauthorized occupation of lands.

Occupying any lands within water resource development projects for the purpose of living thereon and/or maintaining same as a residence without the written permission of the District Engineer is prohibited. The provisions of this section shall not apply to the occupation of lands for the purpose of camping in accordance with the provisions of § 327.7.

#### § 327.22 Interference with Government employees.

Interference with any Government employee in the conduct of his official duties pertaining to the administration of the regulations in this part is prohibited.

#### § 327.23 Violation of rules and regulations.

Violation of the provisions of this part shall subject the violator to a fine of not more than \$500 or imprisonment for not more than 6 months, or both in accordance with section 234 of the River and Harbor Act of 1970 (84 Stat. 1818, 16 U.S.C. 460d, as amended).

[FR Doc.72-16067 Filed 9-20-72;8:53 am]

## DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[ 25 CFR Part 233 ]

SAN CARLOS INDIAN IRRIGATION PROJECT, ARIZ.

Service Connections

SEPTEMBER 14, 1972.

This notice is published in exercise of authority delegated by the Secretary of the Interior to the Commissioner of Indian Affairs by 230 DM 2 (32 F.R. 13938).

Notice is hereby given that, pursuant to the authority vested in the Secretary of the Interior by 5 U.S.C., section 301 (1970 ed.), and section 5 of the Act of June 7, 1924 (43 Stat. 475-476), and the Act of March 7, 1928 (45 Stat. 210), it is pro-

posed to amend § 233.10 of Part 233, Subchapter U, Chapter I, of Title 25 of the Code of Federal Regulations. The purpose of this amendment is to eliminate the need for the project to furnish meter socket or meter base to consumers. The items are now standardized and, as a general practice in the electric utility industry, the consumer furnishes a complete meter loop.

It is the policy of the Department of the Interior, whenever practicable, to afford the public an opportunity to participate in the rule making process. Accordingly, interested persons may submit written comments, suggestions, or objections with respect to the proposed amendment to the Bureau of Indian Affairs, Washington, D.C. 20242, within 30 days from date of publication of this notice in the FEDERAL REGISTER.

Section 233.10 of Chapter I, Title 25 of the Code of Federal Regulations, is amended to read as follows:

#### § 233.10 Service connections.

On each new service the consumer shall provide and maintain a service entrance at a location convenient to the lines of the project, and all connections from the service entrance to the meter base and from the meter base to the main line circuit breaker or distribution center. The meter will be furnished by the United States. The meter socket will be furnished and installed by the consumer and in a suitable location, preferably on the outside of the building, or service pole, where the meter will be accessible to the meter reader at all times. The meter socket shall not be more than 7 feet nor less than 5 feet above the ground or floor. The entire service installation must be satisfactory to the project engineer and must conform to the provisions then in force of the National Electrical Code of the National Board of Fire Underwriters for Electric Wiring and Apparatus. When alterations of a consumer's premises make it necessary to move an existing meter loop, the consumer may be required to install a meter socket in the new loop, located in conformity with the stipulations of this section. When an inspection is required by municipal ordinance, the project engineer shall require a certificate of inspection and approval by the municipal inspector before connecting a new service.

JOHN O. CROW,  
Deputy Commissioner.

[FR Doc.72-16053 Filed 9-20-72;8:46 am]

Bureau of Land Management

[ 43 CFR Part 2650 ]

ALASKA NATIVE GRANTS

### Notice of Proposed Rule Making

The purpose of this amendment is to provide regulations for the satisfaction of grants of lands and interests in lands made by the Alaska Native Claims Settlement Act of December 18, 1971 (43 U.S.C. 1601-1624).

It is hereby determined that the publication of this proposed rule making is not a major Federal action significantly affecting the quality of the human environment and that no detailed statement pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) is required.

In accordance with the Department's policy on public participation in rule making (36 F.R. 8336), interested parties may submit written comments, suggestions, or objections with respect to the proposed rules to the Director (210), Bureau of Land Management, Washington, D.C. 20240 until October 23, 1972.

Copies of comments, suggestions, or objections made pursuant to this notice will be available for public inspection in the Office of Information, Bureau of Land Management, Room 5643, Interior Building, Washington, D.C., during regular business hours (7:45 a.m.-4:15 p.m.).

Chapter II of Title 43 of the Code of Federal Regulations is amended by adding a new Part 2650, as set forth below.

HARRISON LOESCH,  
Assistant Secretary of the Interior.

SEPTEMBER 14, 1972.

Group 2600 of Chapter II, Title 43 of the Code of Federal Regulations is amended as follows:

### PART 2650—ALASKA NATIVE GRANTS

#### GROUP 2600—DISPOSITION; GRANTS

#### Subpart 2650—Alaska Native Grants Generally

- |          |                                                  |
|----------|--------------------------------------------------|
| Sec.     | Purposes.                                        |
| 2650.0-1 | Objectives.                                      |
| 2650.0-2 | Authority.                                       |
| 2650.0-3 | Definitions.                                     |
| 2650.0-5 | Cross references.                                |
| 2650.0-7 | Provisions for Interim Administration.           |
| 2650.1   | Application procedures.                          |
| 2650.2   | Valid existing rights.                           |
| 2650.3   | Patent reservations.                             |
| 2650.4   | Existing rights and contracts.                   |
| 2650.4-1 | Succession of interest.                          |
| 2650.4-2 | Administration of existing less-than-fee rights. |
| 2650.4-3 | National forest lands.                           |
| 2650.4-4 | National wildlife refuge lands.                  |
| 2650.4-5 | Public easements.                                |
| 2650.4-6 | Survey requirements.                             |
| 2650.5   | Areas lacking adequate survey.                   |
| 2650.5-1 | Rule of approximation.                           |
| 2650.5-2 | Selection areas—survey requirements.             |
| 2650.5-3 | Selection limitations.                           |
| 2650.6   | Publication of notice.                           |

#### Subpart 2650—Alaska Native Grants Generally

##### § 2650.0-1 Purpose.

The purpose of the regulations in this part is to provide procedures for the orderly satisfaction of grants of lands and interests in lands made by the Alaska Native Claims Settlement Act of December 18, 1971 (85 Stat. 688).

##### § 2650.0-2 Objectives.

The program of the Secretary is to encourage and assist the beneficiaries of

HQ AR004957-HQ AR004965



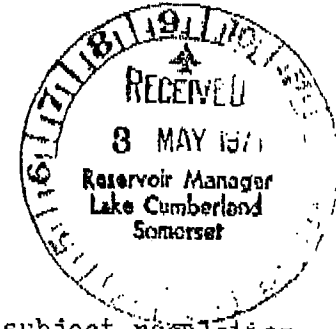
DEPARTMENT OF THE ARMY  
OHIO RIVER DIVISION, CORPS OF ENGINEERS  
P. O. BOX 1159  
CINCINNATI, OHIO 45201

ORDDE

9 April 1971

SUBJECT: Proposed OCE Regulation to Implement Section 234 of the Flood Control Act of 1970 (PL 91-611)

Chief of Engineers  
Washington, D. C.

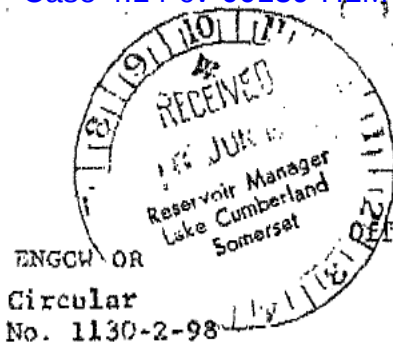


1. Pursuant to request of the General Counsel, OCE, subject regulation is forwarded herewith as Inclosure 1.
2. The alternatives considered for implementation of Section 234, Flood Control Act of 1970 (PL 91-611) are as follows:
  - a. All Civil Works projects with firearms.
  - b. All Civil Works projects without firearms.
  - c. Limited Civil Works projects with firearms.
  - d. Limited Civil Works projects without firearms.
  - e. Single pilot project with firearms.
  - f. Single pilot project without firearms.
3. Limited additional funds and time for training personnel suggested implementation of alternative 2f. Further, guidance informally received at a conference in the Provost Marshal's Office, OCE, on 26 March 1971 concerning this proposed regulation suggested limiting implementation of the citation/arrest authority granted by Section 234 of PL 91-611 to a pilot-project at Lake Cumberland, Kentucky during the calendar year 1971 recreation season. Experience gained from such limited implementation would provide a desirable basis for Corps wide application of the newly granted citation/arrest authority at a later date.

1 Incl  
as

*W. L. Starnes*  
W. L. STARNES  
Major General, USA  
Division Engineer





Circular  
No. 1130-2-98

DEPARTMENT OF THE ARMY  
Office of the Chief of Engineers  
Washington, D. C. 20314

S - 15 Oct 71

EC 1130-2-98

26 May 1971

EXPIRES 31 MARCH 1972  
PROJECT OPERATION

Implementation of Provisions of Section 234 of the  
Flood Control Act of 1970 (PL 91-611)

1. Purpose. Prescribes interim policy and procedure for the implementation of the provisions of Section 234 of the Flood Control Act of 1970 (Title II, PL 91-611).

2. Applicability. Provisions of this regulation will be applied on a pilot project basis to Wolf Creek Dam and Lake Cumberland area, Cumberland River, Kentucky (Lake Cumberland) only for the calendar year 1971 recreation season.

3. References.

- a. Section 234, Flood Control Act of 1970, (Title II, PL 91-611).
- b. Title 36, Chapter III, Code of Federal Regulations.
- c. Federal Magistrates Act of 1968, (PL 90-578).
- d. ER 190-2-3.
- e. ER 670-2-1.

4. Citation Authority. The citation authority granted by reference 3a will be utilized at Lake Cumberland for aggravated instances of refuse dumping and unauthorized disposal of garbage, rubbish, trash, debris, or litter, as contemplated by the language of reference 3a, as well as for violations of the provisions of other regulations contained in reference 3b. The reference to arrest authority in the cited law is subordinate to the procedures prescribed in paragraph 6d. The provisions of reference 3d remain in effect for all other law enforcement at Lake Cumberland.

5. Responsibilities.

a. The Chief of Engineers designates the District Engineer, U. S. Army Engineer District, Nashville, and other employees of the Corps of Engineers at Lake Cumberland, designated in turn by the District Engineer, including the Resource Manager, to serve as Officers of the United States for the purpose of executing the provisions of reference 3a, and will supervise the overall implementation of this pilot project at Lake Cumberland, Kentucky.

EC 1130-2-98

26 May 71

b. Division Engineer, Ohio River Division, will monitor the implementation of this pilot project and will keep the Chief of Engineers informed of major problem areas encountered. An end-of-project report containing recommendations for the extension of the citation authority contained in reference 3a to all Corps of Engineers Civil Works installations will be submitted to the Chief of Engineers by 15 October 1971.

6. Policy and Procedures for Implementation at Field Level.

a. Personnel designated by the District Engineer as Officers of the United States for the purpose of these regulations will:

(1) Be selected from resource managers and rangers on the basis of aptitude, temperament, personality, experience, and ability.

(2) Carry out their duties while in appropriate uniform prescribed by reference 3c. Badges will be worn similar to those worn by uniformed law enforcement personnel. Firearms will not be carried or in any way employed.

(3) Operate from official U. S. Government vehicles equipped with rooftop flashing red light devices.

b/c (4) Prior to initiation of implementation of these regulations at Lake Cumberland, attend an appropriate orientation/instruction course in citation/procedures.

b. Maximum use will continue to be made of verbal courtesy warnings. Extensive use of written citation warnings will be made, and file copies retained by the Resource Manager.

c. Written citations.

(1) Written citations directing appearance before a U. S. Magistrate will be issued, as warranted, by Corps of Engineers personnel designated hereunder as Officers of the United States to persons violating regulations contained in reference 3h.

(2) Prior coordination will be effected with the U. S. Magistrate having jurisdiction to determine the appropriate date and time for the appearance pursuant to citations issued.

(3) If authorized by local rules of the U. S. District Court, payment of a fixed sum may be accepted in lieu of appearance and as authorizing the termination of the proceedings against the alleged violator. Should such payments be permitted, the schedule of amounts thereof should be approved by the Magistrate and collection and handling thereof should be performed as follows: