In the last two decades significant changes have occurred throughout the United States that affect both the fish and wildlife resources and the governmental agencies responsible for fish and wildlife management: Human population growth has been phenomenal; land and water development accelerated at a rate that far surpassed the expectations of the most prophetic; urban expansion; industrial development; agricultural practices; highway construction and countless other activities of man have changed wildlife resources and their use. Change and growth are projected to continue through the 1970's.

Modern wildlife management, made so complex by these increasing resource problems, continuously demands new ideas and new systems to aid wildlife organizations in the efficient prosecution of their responsibilities. Fish and wildlife organizations have changed to meet the past challenges, and will change in the future. Past changes have included, for example, agency reorganization, the addition of and/or increase to highly specialized professions, new budgetary and accounting processes, and most recently the trend toward the system's approach of wildlife program management. Biologists now include in their vocabulary such terms as "cost effectiveness" and "benefit ratios". Administrators and supervisors discuss program budgeting, management by objectives and game wardens and field personnel are planning and scheduling operations.

The fundamental challenges of the 1970's to the fish and wildlife agencies are to solve the problems, to maintain the fish and wildlife resources and to provide to the people satisfactory fish and wildlife use programs. The agencies must do this while at the same time facing increasing competition for the conservation and recreation dollar. During the 1970's, special interest groups and budgetary decision makers will increase their criticism of wildlife programs and continue to ask, - "Is this program the best expenditure of your resources and funds?"

The organizational changes of the past have affected most disciplines of the fish and wildlife organization and in the 1970's none can expect escape from change - including wildlife law enforcement.

State Wildlife Enforcement Programs

Historically, in most States the fish and wildlife agency had its beginning through law enforcement activities. In my State, as it is in many others, law enforcement is budgeted a major portion of the total fish and wildlife dollar. There was a time when this expenditure was not questioned. There was a time when the budget question was, - "What do you want to spend money on a biologist position for?" Changing times are illustrated through contemporary philosophies that question even the need of wildlife law enforcement. At the least, demands are increasing in almost every State for law enforcement to develop staffing standards to evaluate their operations and effectiveness.

As a result of these various pressures, several States are developing or considering a wildlife law enforcement management system based on the establishment of objectives and the development and evaluation of programs to attain those objectives.

Objectives are most important. The establishment of objectives guides the future of the organization and makes it possible to evaluate the organization and its program. The establishment of objectives stimulates creative thinking and encourages consideration of new ways to do things. Without objectives, organizational planning cannot proceed nor can operations be evaluated.
The archaic (but commonly accepted) enforcement objective of "arrest all violators" is neither wholly attainable nor does it necessarily relate to the fish and wildlife agency's objective. The objective "total, 100% compliance with laws and regulations" is not realistic. Human nature being what it is, there will always be instances of noncompliance due to ignorance, oversight or deliberate intent. Such an objective could never be attained no matter what amount of effort was applied. In considering the dollar cost of compliance, California studies have found the cost of law enforcement effort increases sharply as total compliance is approached (McCormick 1970).

A much better objective for wildlife law enforcement is "to maintain an acceptable level of compliance." This objective can be attained and the concept relates to higher organizational objectives. By stating an end rather than a means, law enforcement personnel are prompted to think of various programs to attain the "acceptable level of compliance." Perhaps, for example, the pursuit of violators should be augmented by an educational or informational program or even the regulations themselves are poor and should be changed.

A high overall average level of compliance for fish and wildlife does not in itself have any value. Priorities must be established. Specific levels of compliance must be maintained that insure the preservation of wildlife species and allow for increase (or prevent a decrease) of those species whose populations are not able to support use demands. Once an acceptable level of compliance has been established, the percentage of noncompliance is accepted as normal or characteristic and should no more be a cause of concern to law enforcement than the expected normal mortality rate of animals is to fishery or game biologists.

An objective "to maintain an acceptable level of compliance with fish and wildlife laws" can be expressed as a percentage; it is attainable and the effectiveness of programs designed to attain it can be evaluated.

The success of a law enforcement management program depends not only on the establishment of objectives, but also the ability to measure the effectiveness of various programs. The design of law enforcement programs must include a system of evaluation. Evaluation must answer the question, "to what degree are the program objectives being attained?" The effectiveness of most other wildlife programs can be (and usually is) measured. For example, the cost benefits of a catchable trout program are known, and the outputs of a deer hunting program are quantifiable. Each has readily identifiable objectives with measurable program effectiveness. The evaluation of wildlife law enforcement programs, however, had not until recently been undertaken. California has developed a system to evaluate the effect law enforcement effort has on the rate of compliance with fish and game laws, and there are positive indications that in the 1970's other States will undertake similar research (McCormick 1968).

In looking back over the history of the States' wildlife organizational changes, perhaps law enforcement agencies have been lax in defining objectives and evaluating operations; possibly because it has been, until recently, an unknown field; possibly because of an inherent resistance to close examination of our own activities. Whatever the reason it has been passed over citing various excuses. It appears that in the 1970's excuses will no longer be acceptable. Law enforcement must develop a means, a system of evaluation that will provide administrators with a continuity of reasonable and meaningful data for organizational decision making.

**Federal Wildlife Law Enforcement Programs**

Whenever the paramount interests of the people are concerned, the authority of the Federal government takes precedence over that of the States. This principle applies to all areas of interest including wildlife user control (Siglar 1956). Thus, for example, the problems of interstate commerce of wildlife, treaty involvement with foreign countries, unlawful importation and exportation of wildlife and other programs and problems that defy the authority or capability of the State(s) to adequately resolve are primarily those of the United States Fish and Wildlife Service. From that point on, the relationship of the Federal wildlife law enforcement program to that of an individual State is often anomalous.
The critical questions of management pertaining to program appropriateness and expenditures being asked now of State agencies apply to the United States Fish and Wildlife Service: What are the objectives and the effects of Federal law enforcement on the National and State fish and wildlife programs? Trends indicate that in the 1970's the States will develop management systems based on program objectives: Should results of these efforts be applicable only to individual States or should there be a total, State-Federal system designed toward attainment of common objectives?

In many instances Federal law enforcement programs duplicate (or even compete with) State efforts. For example, assume that some States presently maintain an acceptable level of compliance with laws and regulations pertaining to the waterfowl resource. (The acceptable level is one that insures maintenance of the species and satisfactory use experiences). Is it then a wise expenditure of Federal funds to employ field patrolmen for waterfowl user control in those States?

Past justification for Federal first-level patrol programs have included statements concerning the greater deterrent effect of Federal patrol vs. State patrol. Certainly, to a potential violator, the authority of the Federal government is awesome and those wildlife resources under the purview of the Federal government have a prestigious protector. The actual value to program success, however, is assumed: It has not been measured and should not be a basis for modern program management.

Subsidies to States through the assignment of Federal law enforcement agents for first-level patrol work should be viewed as only short term program expenditures and then only to resolve problems beyond the desire or capability of the States themselves to resolve. Federal law enforcement program emphasis should be shifted from first-level patrol to those of higher priority objectives: The attainment on a National basis of an acceptable level of compliance with fish and wildlife laws and regulations.

The planning, development and evaluation of modern wildlife law enforcement programs, whether it be for resident, migratory, or endangered wildlife is time consuming and difficult work. Many States do not have the immediate capabilities or knowledge to commence. A National program could be designed to assist States toward the development of planned programs that have measurable and attainable objectives. Such a program could conceivably include application of an aid or grant program to State's law enforcement (McCormick 1969).

Not the least of problems in the wildlife law enforcement discipline throughout the nation are those of personnel recruitment, training and the maintenance of skills. In other fields of enforcement this same problem, national in scope, has been recognized and problem solving programs designed. It is a point to ponder why for years fish and wildlife administrators throughout the nation have expressed major concern over the professionalism of their enforcement officers and yet there has not been a significant National program designed to resolve the problem.

The opportunity exists in the 1970's for the United States Fish and Wildlife Service to achieve national leadership in the development of modern, professional wildlife enforcement systems: Systems that work toward the attainment of mutual objectives for the government and the States. Exemplary internal management, coupled with meaningful State law enforcement assistance programs would be attractive to decision makers and the wildlife users of the nation.

SUMMARY

The 1970's will see significant changes in the management of wildlife law enforcement. The era has passed that permitted law enforcement management based on intuition, poorly analyzed data, dimly remembered experiences of the past and planned activities which satisfy only the individual. Although law enforcement must deal with crises and react to opportunities, that in itself is not a basis for management. Law enforcement administrators in the 1970's will be increasing their capacity to find the causes of violations rather than seek only increased capacity for violator apprehension and control.
This next decade will see wildlife law enforcement taking a leadership role in the modern wildlife management system by being based on planning, the establishment of objective levels of compliance, and the scheduling and evaluation of programs. Law enforcement will be able to measure and quantify on a cost-effectiveness ratio the planned results of their efforts and will be able to state, adequately and without emotional distortion, the contribution it makes to the total wildlife program.

LITERATURE CITED

McCormick, James B. 1968. A Procedure for Evaluating the Effectiveness of Wildlife Law Enforcement. Western Association of State Game and Fish Commissioners.

