

OBJECTIVES OF STATE WILDLIFE LAW ENFORCEMENT DIVISIONS

KIRK H. BEATTIE, Department of Fisheries and Wildlife Sciences, Virginia Polytechnic Institute and State University, Blacksburg, 24061

CLEVELAND J. COWLES, Department of Fisheries and Wildlife Sciences, Virginia Polytechnic Institute and State University, Blacksburg, 24061

ROBERT H. GILES, JR., Department of Fisheries and Wildlife Sciences, Virginia Polytechnic Institute and State University, Blacksburg, 24061

Abstract: An 11-question wildlife law enforcement objectives questionnaire was mailed to all state enforcement divisions during January 1977. Five follow-up reminders mailed at approximately 2-wk. intervals resulted in the return of questionnaires from 45 divisions. Twenty-seven of 45 states reported having explicit, written objectives; 7 of the 18 states without objectives reported they did not anticipate formulating objectives. Fifteen of the 27 states reporting objectives also reported having 1 or more objectives with associated measurement criteria. Eight of the 15 states reporting 1 or more objectives with criteria listed 1 or more measurement criteria for each objective. Of the 157 objectives listed collectively by the 27 states, measurement criteria existed for 50 of the objectives. Twelve states reported they had ranked the importance of their objectives.

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Objectives are an essential ingredient of a management system. Formulating objectives and then managing by them can serve to indicate actions to be undertaken and can increase effective expenditures of public agency time and money. Developing objectives is the first step toward designing a wildlife law enforcement system.

The purposes of this paper are to document the objectives of state wildlife law enforcement divisions, to discuss criteria employed by enforcement divisions to assess the achievement of objectives, and to provide suggestions for improved development of objectives. This paper is a contribution of the Southeastern Wildlife Law Enforcement Research Project. The financial assistance of the Wildlife Management Institute, American Petroleum Institute, National Wildlife Federation, Virginia Commission of Game and Inland Fisheries, South Carolina Wildlife and Marine Resources Department, Georgia Department of Natural Resources, and the Tennessee Wildlife Resources Agency is gratefully acknowledged.

METHODS

An 11-item questionnaire was mailed to all chiefs of enforcement of state wildlife law enforcement divisions during January of 1977. The chief or his appointed designate was requested to complete the questionnaire. Enforcement divisions were requested to provide information concerning:

- (1) Whether the division had explicit enforcement objectives;
- (2) Whether the division had ranked the relative importance of its objectives;
- (3) Whether the division had published or stated its objectives in written form in any publication, memorandum, and/or document;
- (4) The measurement or evaluative criteria used for measuring the degree of achievement of each of the objectives;
- (5) Whether the division had requested and/or received assistance from other divisions of their agency when formulating objectives;
- (6) Whether the division had requested assistance from other state enforcement divisions when formulating objectives;
- (7) Whether the division was in the process of modifying present objectives, and;
- (8) Whether the division was in the process of formulating additional objectives.

The remaining 3 items of the questionnaire were reserved for those divisions not reporting the presence of explicit objectives.

Five follow-up reminders, each accompanied by an additional copy of the questionnaire, were mailed to nonresponding divisions at approximately 2-wk. intervals

beginning 2 February 1977. No additional effort was made to contact those divisions not responding to the 6 contacts.

RESULTS AND DISCUSSION

Questionnaires were completed and returned by 45 of the 50 divisions. When asked if their enforcement division had explicit, written objectives, 27 of the 45 states responded affirmatively. A chi-square test of independence was employed to test the null hypothesis that there was an independent relationship between the region of a state and whether a state reported 1 or more objectives. States were categorized by region using Morse's (1976) classification. An insignificant chi-square statistic ($X^2 = 1.24$, $df = 3$, $P > 0.70$) indicated that there is no apparent relationship between region of the U.S. and whether a state reported 1 or more objectives.

Twelve states reported they had ranked the importance of their objectives. Assigning importance weights to objectives is necessary for determining manpower and funding allocation strategies. Without weighting objectives, the danger arises that objectives will be perceived by agency personnel as being equal in importance. This will probably result in inefficient and wasteful expenditures of energy and manpower in certain activities.

Twenty-one of the 27 states reported they had published or stated their objectives in written form in a publication, memorandum, and/or document. Fifteen of the 27 states reporting objectives also reported having 1 or more objectives with associated measurement criteria. Twelve states did not have evaluative criteria for objectives. Eight of the 15 states reporting 1 or more objectives with criteria listed 1 or more measurement criteria for each objective. Of the 157 objectives listed collectively by the 27 states, measurement criteria existed for 50 of the objectives (i.e. there were no criteria reported for over two-thirds of the objectives).

Nine of the 27 divisions reporting objectives had consulted with 3 or more agency divisions when formulating objectives. Game and fish divisions were the most frequently consulted. Four of the 27 divisions had requested assistance from enforcement divisions of other states prior to developing objectives. One state had contacted all other enforcement divisions, 1 state consulted with 1 other division, and 2 states consulted with 3 other enforcement divisions. Ten of the divisions were in the process of modifying present objectives and 10 were in the process of developing additional objectives.

Eighteen divisions reported they did not have explicit enforcement objectives. There also appears to be some resistance to develop objectives. Seven of the 18 states without objectives reported they did not anticipate formulating objectives in the future. Of the 12 divisions planning to develop objectives in the future, 3 anticipated having objectives by the end of 1977 and 2 by the end of 1978. Nine of the 12 divisions stated they were going to request assistance from other divisions within their separate agencies when developing objectives. Divisions to be consulted normally consisted of game, fisheries, and information and education. One division (West Virginia) was planning to consult with criminal justice departments from 2 of the universities in their state. Seven of the 12 divisions were planning to consult with enforcement divisions of other states when developing objectives.

Formulating Objectives

On the surface, or initially, it would seem to be a simple task to formulate concise objectives for a wildlife law enforcement system. Consider the following statements:

1. To spend 8 hours per day patrolling paved secondary roads in county X.
2. To make hunters in county X aware of game law Y.
3. To increase fines levied against convicted violators of law Y in county X.

These statements look like they are objectives; they appear to state end purposes or what is to be accomplished. But are they really desired achievements? *Why* are 8 hours per day desired for patrolling paved secondary roads in county X or to make hunters aware of game law Y? The above statements are all *actions* that might be taken to achieve an objective of "Reducing violations of game law Y in county X from 60 to 30 per

month during the fall of 1978." The perceptive reader may counter with: "But what we really want to do is to increase the probability from 0.25 to 0.50 that a hunter in county X during the fall hunting season will encounter at least one member of game species Z." Another reader, equally perceptive, may state: "What we *really* want to do is to increase hunter satisfaction as a result of increasing the probability that he will encounter an individual of species Z." The statement about reducing violations and portions of the statements of the 2 readers are all objectives. All 3 statements are aligned with at least 1 requirement of an objective: they do not state *how* something is to be done, but what is to be achieved, the desired end or conditions. Patrolling in county X, increasing hunter awareness of law Y, and increasing fines for violations of law Y are objectives, but they are fourth-order objectives, or actions.

A Typology of Objectives

First-order objectives are the foundation of a system, the structure upon which all other objectives must rest. A first-order objective is a single statement about what a system is. It is the final broad criterion against which to test a decision or the consequences of an action resulting from a decision. First-order objectives cannot be measured directly but can (and should) be measured indirectly.

Examples of first-order objectives of a wildlife law enforcement division may include:

1. To assure that a desired level of resource use is obtained.
2. To distribute resource use or consumption equally among users.
3. To protect public and private property from physical harm as a result of resource use.
4. To protect participating resource users from physical harm.
5. To protect non-resource users from physical harm as a result of resource-use activity.
6. To insure agency income by requiring users to pay for resource use.

First-order objectives can help clarify the context of enforcement. They can also serve as focal points for all other major parts of the enforcement system.

Second-order objectives state what a system *should do* and are prime criteria for identifying what a system is. Second-order objectives provide the basis for judging the difference between what *was done* and what *should have been done*. The previous statement about reducing violations from 60 to 30 per month is a second-order objective. It states *what* is to be done and not *how* to do it. Action verbs of a second-order objective should include one of the following: maximize (increase), stabilize, or minimize (decrease, reduce). It may be necessary to combine verbs. For example, an objective may be to reduce violations of law X in county Y from 60 to 30 *by* 1 September and stabilize (maintain at 30) until 31 December. Second-order objectives should be attainable and measurable. Table 1 presents criteria for evaluating objectives and characteristics for writing objectives. Applying these criteria to objectives already written should serve to indicate the appropriateness of statements of objectives.

Ritter (1975) developed a set of second-order objectives for statewide analysis of an enforcement system and an additional set for detailed analyses of individual agent effectiveness. The interested reader is directed to Ritter's (1975) thesis for a presentation of second-order objectives and individual agent objectives.

Third-order objectives are policies or constraints. They are statements of standards of performance and are sometimes called standards. They tell how actions or jobs will be performed. The emphasis is on "how". For example, agents may be required to inspect sportsmen licenses in a pleasant manner; or, agents may be directed not to proceed faster than 80 m.p.h. when pursuing a suspect on a secondary road. Third-order objectives are constraints.

Fourth-order objectives are actions. They are the *means* for achieving objectives and are the consequences of decisions. Previously discussed actions were patrolling, increasing hunter awareness, and increasing fines.

Table 1. Criteria and characteristics for developing and evaluating statements of objectives.

Criteria

It has been written for the proper audience;
It is grammatically correct;
It is brief;
It can be understood to at least 3 persons' mutual satisfaction;
There are 2 or more ways of achieving it;
Progress toward it can be measured;
Acceptable units of measure can be agreed upon;
It contains no methodology;
It is flexible, allowing for adjustment to new directions or conditions;
It is not a step to a higher objective;
It cannot be combined with another objective on the basis of the participant;
It attains at a level beyond presently known capabilities of use or benefit;
It goes beyond preventing deleterious effects;
It has no hidden objective;
It expresses what to obtain;
It expresses what to obtain;
It is short-term;
It is long-term;
It is quantitative;
It is qualitative;

Advantages of Objectives

One of the biggest advantages of managing the wildlife law enforcement system by objectives is that needs (desired outcomes) are paramount. If an objective is desirable and important, agents *then* list all possible alternative actions that could be selected and implemented to achieve an objective. Ranking each alternative according to the degree to which it would (probabilistically) achieve an objective helps to choose among alternative courses of action. Without objectives, we know *how* to get somewhere without knowing *where* we are going. The ways in which an objective can be achieved should not be considered until *after* the objective is articulated and ranked. While formulating an objective it is only necessary to know that it is likely to be attainable.

Problems in Developing Objectives

Many state enforcement divisions have tried to set workable objectives. Few have succeeded. The following fairly typical replies were received in the national survey of enforcement objectives:

State 1

Goals and objectives in the field of any law enforcement are difficult to define, at least in a meaningful way.

The problem in setting an objective in (wildlife) law enforcement is to make it realistic but yet attainable. Even then it would be pretty hard to measure when you got there.

A person more versed than I am in present day governmentese language could probably write up something that would sound fine, yet not really mean anything.

In (state) the supply of wildlife is keeping up pretty well, so we must be doing something right even without knowing it.

Good luck anyway.

State 2

I apologize for not answering your questionnaire sooner. Part of the delay is due to our current work load . . . Admittedly, some of the delay is pure frustration.

We have made several faltering attempts to set objectives, but each time they become so broad in scope that it makes measurement impossible. I feel certain you will encounter this same problem with other enforcement divisions.

I am enclosing a copy of our broad objectives.

Perhaps the reader can see the similarity of the 2 replies. Two points stand out: breadth of scope and difficulty of measurement. It is our observation that relative failures at past efforts to formulate enforcement division objectives have resulted from relying heavily on first-order objectives that cannot be measured directly and from attempting to bridge the gap between fourth-order and first-order objectives without formulating second-order objectives. Another difficulty has resulted from combining different orders of objectives. Consider the following objective, reported in the national survey:

To reduce the number of firearm related accidents, promote responsible wildlife, fisheries and forestry management, improve hunter-landowner relations and enhance the image of (state) hunters by presenting hunter education to 31,060 persons between 10 and 18 years of age.

There are conceivably examples of all 4 orders of objectives in this "objective." The words "promote," "improve," and "enhance" and their associated parts could be considered examples of first-order objectives. Once the words promote, improve, and enhance have been translated to more specific verbs and incorporated into specific second-order objectives, measurement can begin. "To reduce the number of . . ." contains some of the basic characteristics of a second-order objective. "By presenting hunter education to . . ." is an action. It tells how something is going to be achieved. The mention of 31,060 persons is probably a constraint. It may be part of a third-order objective.

It is apparent that the process of articulating measurable objectives is difficult for most enforcement divisions. This is true for all agencies who attempt objective-setting seriously. First- and fourth-order are probably "easier" to write than second- or third-order objectives. This may explain their preponderance among reported enforcement division objectives.

Action Verbs and Objectives

Analysis of the results of the survey produced a list of action verbs and their frequency of occurrence in stated objectives of enforcement divisions. These are presented in Table 2. Many of the verbs are what McConkey (1975:56) refers to as "weasel words." Weasel words are nebulous, subject to wide interpretation, and may be a means of avoiding a particular statement of purpose. Consider the verb "improve". An "improvement" to a sheep rancher may mean no coyotes; an "improvement" to a strict preservationist may mean no killing of sheep. The verb "maintain" (similar to sustain) is similar. A sheep rancher may desire to see the coyote population "maintained" at 1 coyote per 100 square miles; the preservationist may suggest artificial feeding to "maintain" a density of 1 coyote per 10 acres. The point is that the "objective" of maintaining the coyote population does not suggest what action(s) should be taken (i.e. as would the verbs to maximize, stabilize, or minimize subject to constraints). Table 2 contains only one verb appropriate to establishing a second-order objective: reduce, and it was mentioned in only 7 of 157 objectives.

Measurement Criteria for Objectives

Many criteria listed by states appear to be of questionable validity and usefulness. For example, one of the objectives of a north central state is to "protect the environment from further deterioration." Disregarding the ambiguity of "protect", "environment", and "deterioration", the criterion reported was "the effect of various violations on the resource." It is difficult to see how these 2 global statements can be incorporated into a

finely-tuned, rationally designed wildlife law enforcement system.

Table 2. Action verbs and their frequency of occurrence in stated objectives of state wildlife law enforcement divisions (listed in decreasing frequency of occurrence).^a

<i>Verb</i>	<i>Frequency of occurrence</i>	<i>Verb</i>	<i>Frequency of occurrence</i>
Enforce	19	Establish	4
Provide	17	Detect	3
Protect	15	Prevent	3
Develop	15	Present	3
Maintain	8	Recommend	3
Conduct	7	Utilize	3
Plan	7	Disseminate	2
Initiate	7	Cooperate	2
Reduce ^b	7	Deter	2
Apprehend	6	Assist	2
Monitor	6	Regulate	2
Improve	5	Aid	2
Investigate	5	Inform	2
Insure	4	Apply	2
Patrol	4	Educate	2

^a 41 verbs occurring only once are not included.

^b Properly stated verb of a second-order objective.

Classification of Enforcement Objectives

Stated objectives of enforcement divisions were categorized into relatively similar functional groups. These objective classifications are shown in Table 3.

Many objectives were reported 1 or 2 times and are not listed in Table 3. These infrequently-cited objectives were generally related to particular situations the agency was experiencing and were short-term. As would be expected, the most frequently-cited type of objective was related to enforcing applicable laws. In most cases, statements of "enforcing laws" are not objectives, but represent the official reason for the existence of the division; these statements would not normally be considered even first-order objectives. Elements of properly-stated first- through fourth-order objectives occur among the various groupings. The reader can probably conceive of different ways in which some of the objectives could be measured. For other objectives (e.g. protect wildlife habitat and insure the integrity of the environment; protect life) the possibility of evaluation seems doubtful.

Managing by Objectives in Wildlife Law Enforcement

Most managers in the business world have heard of "management by objectives" (MBO). Many business managers live with it daily. MBO, although it may be called something different in the future, is not a passing fad. MBO and its benefits are too well established, having survived the test of about 20 years of practice in the business world. MBO, the Planning and Programming Budgeting System (PPBS), and the currently-popular government zero-based budgeting (ZBB) are basically name-tags for the same

Table 3. A content analysis of frequently cited objectives of state wildlife law enforcement divisions (listed in decreasing frequency of occurrence).

<i>Objective classification</i>	<i>Number of times mentioned</i>
Develop, administer and enforce laws, regulations, and treaties relating to natural resources and to the use of resident, migratory, threatened, and endangered species of animals.	25
Develop a more professional and efficient law enforcement unit by: offering more training opportunities, furnishing higher quality uniforms, providing modern equipment, increasing size of enforcement staff, and increasing enforcement capability and effectiveness.	21
Decrease number of violations and violators; maintain an acceptable rate of compliance; apprehend violators.	18
Provide for and administer resource-user safety training program (includes training of instructors).	13
Disseminate information about fish and wildlife resources and rules and regulations governing their use.	10
Protect life; participate in search and rescue missions.	5
Patrol wildlife-inhabited areas to prevent, detect, investigate and apprehend violators.	5

management approach: a systematic approach to achieving desired ends or a system's approach to managing by objectives. The purpose of MBO is not to have managers arrive at a list of objectives but is to help managers achieve and *document* significant results. The key word in "management by objectives" is not "objectives" but is "management". Objectives are not the system but are the structure or backdrop against which all actions are measured. The substance of MBO was incorporated into Lobdell's (1972) development of a Management Activity Selection Technique (MAST) for use by wildlife agencies. Lobdell's procedure is operational in several states. Ritter's (1975) work was done along similar lines for use by wildlife law enforcement divisions. Readers should consult McConkey's (1975) book for a full description of the MBO approach. McConkey (1975:33) has noted that "Experience has proved that MBO, by itself, will accomplish nothing but chaos. In the hands of a capable management that is ready for it and knows how to use it, it has much to offer."

Once an enforcement division is committed to the philosophy of management by objectives and has initiated steps to begin the objectives-forming process, the important question of "who is to set the objectives?" must be answered. Alternatives available are: (1) to contract with a consultant and have him "go it alone," (2) formulate objectives independent of consultants, or (3) to interact with consultants and cooperatively develop objectives. McConkey (1975) noted that there are many MBO consultants in the business world but, in his opinion, only a minority are qualified. Wildlife law enforcement is very specialized but there are individuals with the technical skills necessary to assist in designing an enforcement system.

Enforcement division objectives will probably be of greater value and more agreed-upon if input is solicited from sister divisions (e.g. game, fish, education). Input solicitation should not be accompanied by a list of objectives which the enforcement division has previously developed. Otherwise, sister divisions may believe the objectives have been pre-determined and may be reluctant to provide additions or modifications. However, enclosing standards for writing and evaluating first- and second-order objectives should accompany input solicitations to maintain uniformity and usefulness of suggested objectives (see Table 1). It will probably be advantageous if all members of the enforcement division are consulted before a preliminary list of objectives is developed. This will likely improve feelings of comraderie and shared future direction. Several (2-4) well-qualified individuals, preferably with the help of a consultant, should do the actual writing of objectives. These objectives can later be sent to other divisions for their suggestions. A consultant can be especially valuable in presenting various approaches that can be employed for assigning importance-weights to objectives.

Setting objectives and then managing by them is a time-consuming and expensive process. It is not something done in a week. It may take 6 months to a year before objectives are finalized and attention is directed toward actions to be taken to achieve objectives.

The time required to realize the full impact of MBO is not a few months but a few years. McConkey (1975) suggested that 3 to 5 years is required to reach what he termed an 85 percent effectiveness level, the point at which most of the system is in place and being practiced by almost all personnel.

Objectives, regardless of the system with which they are associated, are not derived by a magical or metaphysical process. There is no "right" objective. Objectives do not have to be agreed upon at all levels or by everyone at a particular level. Objectives are value judgments and total agreement will usually sub-optimize. The difficulty of writing precise, useful objectives and then managing by them is real, but so is the fact that \$125 million is spent annually by state enforcement divisions.

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