

THE WILDLIFE RESOURCE IN CALIFORNIA'S FUTURE

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The task of this panel is to discuss the development and use of natural resources in the years ahead. My task will be to describe the future of the California wildlife resource. What will it be like? How will it be used by people? How will this future be attained?

To answer the first question, "What sort of wildlife resource will we have in the future," we must realize that California's wildlife resource will depend largely on the way in which our State is developed. Every human activity, whether it be the development and use of natural resources or one of the many uses made of the State's land, water and air, will have its effect on wildlife habitat. The changes that take place can, from our viewpoint as wildlife managers, be good or bad for our resource. History though, shows many instances of detrimental effects when the human activities have objectives that do not recognize fish and wildlife values.

California started with, and to a large extent still has, an unusually varied wildlife resource. Variety is, in itself, an attractive quality and one we should endeavor to retain. It will be worth our while to remember that many human activities, intentionally or otherwise, reduce varied habitats with diverse wildlife populations to relatively uniform types. Agriculture and urbanization are prime examples of major activities causing the loss of varied habitats by such means as leveling, channeling, paving, single cropping, clearing and draining.

It is hard to conceive the complete extirpation of fish and wildlife but unless plans are made to prevent it, the impacts of the development and use of other resources would reduce the future wildlife resource to species and population magnitudes able to exist on the "leavings" after other resources have been used. This is a present world-wide problem and one that is being recognized by many nations. It is a problem that we must face and one that we must solve.

other resources were developed. Such a resource would not be related to the demands of our future human populations and might suffer further losses as a consequence.

We cannot describe this possible fish and wildlife resource unless we examine the plans of every other resource developer and all the proposed uses of the State's area. In many important areas, plans have either not been developed or are not available for review. Based on past experience, however, we could forecast the loss or reduction of many of our most desirable species.

If, however, plans are made to maintain a fish and wildlife resource that will satisfy the future demands of our citizenry, we do have something to describe, provided we know something about these demands.

This brings us to the second question, "How will the people want to use fish and wildlife in the future," before we can really answer the first. A forecast of human desires is never easy nor can it be absolutely positive but there is a basis for determining both the possibility and the probability of future activities.

During the last 20 years, there has been a significant increase in the general public's capability to enjoy the fish and wildlife resource. The free time, discretionary income and mobility of the average citizen has increased and all economic forecasts are that this increase will continue in the future.

Knowing that our citizenry has the time, money and equipment to go out and use the wildlife resource, we must next determine whether they will want to do so or whether they will instead spend their capital in other unrelated pursuits. Our interest then is more in the variety of uses than in the magnitudes of each demand. Projections of use-opportunity demand must be based on an examination of past and current practices in search of definite trends.

When fish and wildlife was first recognized as a resource to be maintained and managed, most demands were for appropriative use with the emphasis on the animal itself as the desired product. Little concern was shown for the method used to reduce the public resource to private possession except to limit methods that were thought at that time to be unduly wasteful. Just about all users were after meat but only those who made their living hunting or fishing were considered professionals.

As it became apparent that the wildlife resource was not inexhaustible, there was a strong demand for the total protection of some species. This

demand is still with us and will surely continue into the future even though in many cases responsible managers may not agree with the need for total protection.

Gradually a group of users developed who sought a recreational experience. Basically this group has two sections: those who hunt and fish but find a greater value in the pursuit than in the consumption of the prize, and those who do not want to appropriate the resource at all but rather derive their enjoyment from looking at and listening to wildlife and having them available for photography and study. A good many people in this group participate in both appropriative and non-appropriative uses.

Recreational uses of wildlife have been and will continue to increase. Among hunters and anglers there is a steady increase in demands for use-opportunities that require special skill such as archery and fly fishing. The desire of sportsmen to handicap themselves in order to derive greater recreation is exemplified by current demands for a recently manufactured single-shot big game rifle, the very antithesis of modern technology.

The integrity of the trend toward the skill-dependent uses is confirmed by a parallel trend in other outdoor recreation activities such as canoeing, sailing, cycling and back packing.

The non-appropriative users on the other hand are increasing partly due to the availability of better equipment for photography and sound recording and better guides for understanding and interpretation.

Scientists and educators increasingly voice demands for both appropriative and non-appropriative use of the wildlife resource for the furtherance of their studies and teaching. Often they desire the exclusive use of space in order to carry on investigations free from interference. This group has pointed out the complexity of the resource and the often unknown consequences of reducing or losing populations of seemingly obscure species.

We have never ceased to have an economic interest in the resource. Many of the marine living resources are of sufficient magnitudes to support direct commercial exploitation. There is high consumer demands for the product as well as demands for the employment opportunities afforded by the industry. Significant industries are based on demands for equipment and services emanating from all types of fish and wildlife resource users.

Looking to the future we can see effective demands for an increasing variety of uses of fish and wildlife. The most significant increases in

magnitude are for non-appropriative recreational use and scientific and educational use.

To a large degree, society can have whatever type of fish and wildlife resource they want in the future provided we plan for it and they accept the costs. It may be impossible to provide enough of a given use-opportunity to satisfy the demand, but we can maintain and increase the diversity and quality.

Our answer to the third question, "How will the future fish and wildlife resource be attained," is "through the development and implementation of a variety of plans". Plans are needed not just for the use and maintenance of fish and wildlife resources, but for all resources and ultimately for the State itself.

Successful planning requires a logical sequence of development. Past failures have often been due to violation of this rule. Urban plans have ignored natural resources, transportation plans have failed to recognize their impact on local economies and recreational opportunities have been planned without plans for user facilities, to name a few.

To a large degree the conflicts and omissions of past plans have occurred because single interest plans were developed without sufficient knowledge of the objectives and plans of other interests. This situation cannot be improved until a majority of interests develop and disseminate their own plans.

I feel that the agencies and interests in the natural resource field could greatly improve their position in the ultimate development of the State by leading the way in planning.

The first step that must be taken is the clear definition of objectives. We have done this in the California Fish and Wildlife Plan and have found it most valuable. An organization's objectives must be understood by all its members before effective programs can be developed and implemented. Other interests need to know your objectives as they develop their plans. Mutual knowledge and acceptance of objectives will reduce conflicts between resource development interests.

The definition of objectives usually starts with a search of statutory authorizations and various levels of policy. Such an investigation may reveal objectives that are anachronistic and need revision even if legislation is required. Obsolete objectives are not unusual in the natural resource field where the goals of resource development and the demands of the people have changed so radically in a short period of history. Certainly

the objectives of the people in the development of the mineral resources have changed since the days of hydraulic mining.

A single interest may not recognize the need to revise its objectives until it has revealed them to other interests. Conflicts between resource users and between resource development are best recognized and resolved at the earliest opportunity and then restated as current objectives.

Organizational policies must be revealed and adjusted within the resource field just the same as objectives.

At this point it is easy to see that the objectives and policies of interests outside the natural resource field can also be outdated or in conflict with our interests. Transportation is an example. Think of the problems that both highways and airports have caused. These conflicts must be resolved too, but I am suggesting that the natural resource interests clean their own house first.

When the objectives and policies of the various natural resource interests have been developed and reconciled, single interest plans can be developed for each resource. With this background, resource development can be planned realistically with due regard for the impact of one activity on others. Needless conflicts and waste of resources can be avoided and opportunities for side benefits can be realized. The final result will be a comprehensive natural resource plan.

The development of a comprehensive natural resource plan will not, however, be enough to insure the maintenance and wise use of our resources into the future. We still must deal with the interests outside the natural resource field. To a degree a state development plan reconciles all interests, but it must because of its scope be broad in nature. The detailed, operational plans that actually solve the problems and offer the use programs must be based on a smaller area. Comprehensive area plans must be developed to really gain the people's objectives.

A comprehensive area plan is one that establishes the people's objectives in the development of a specific area and determines a combination of uses of the area and its resources that will produce maximum net benefits at minimum costs. Comprehensive area plans do not just consider the development and use of the area's natural resources, but plans for all the uses that the people want to make of the area as well as its resources, including housing, transportation, agriculture, for example. Comprehensive area plans are developed as the final step in the logical sequence of planning. They are operational plans that can be implemented and maintained.

At this time comprehensive area plans are being developed for San Francisco Bay and the Lake Tahoe region and a proposal for developing a comprehensive area plan for Morro Bay has been sent to the Legislature. The Department of Fish and Game is involved in each of these efforts.

In summary, let me say that the wildlife resource does have a future in California and that future will depend on how well we plan it. Demands for use-opportunities will increase both in magnitude and variety. We will be able to satisfy these demands in relation to our ability to maintain the present variety of habitat and realize opportunities to improve habitats altered by other interests.

I am sure all of you here as professional wildlife workers recognize that your futures are tied closely to the future of the resource. It behooves you to not only support fish and wildlife planning but to yourselves become adept in the methods and techniques now being developed.

At present we are leaders in the field of fish and wildlife resource planning, but we cannot afford to slow down. A sustained fish and wildlife planning effort will maintain a pressure on other resource managers that will force them to accelerate their planning too. The State will continue to progress toward increasingly sophisticated plans. Comprehensive plans will be developed for our natural resources and with this as a basis, we will become increasingly involved with other interests in comprehensive area planning.