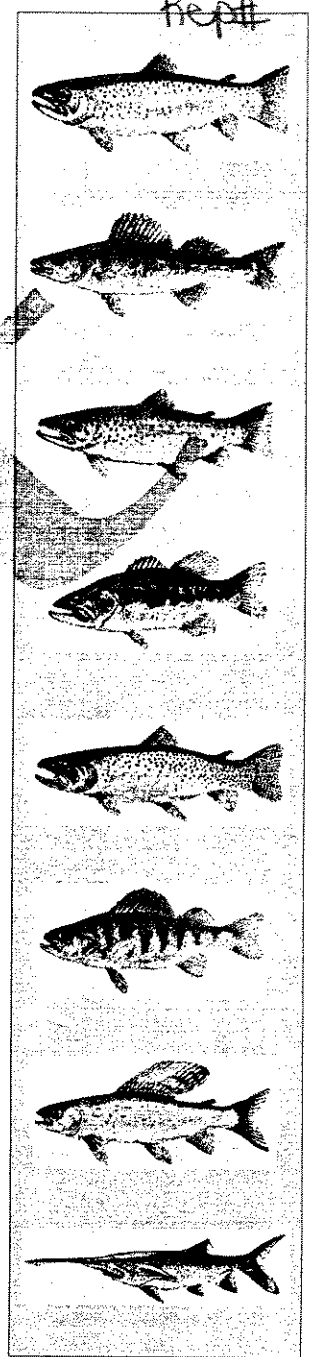


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# Fisheries Beyond 2000

**Fisheries  
Program  
Strategic  
Plan**



1998 . . . 2008



**Montana Fish,  
Wildlife & Parks**

## **Executive Summary for *Fisheries Beyond 2000***

### **Introduction**

*Fisheries Beyond 2000* is a ten-year strategic plan that has been prepared by the fisheries program of Montana Fish, Wildlife & Parks. It seeks to draw upon a diverse constituency of Montanans to develop, review, and set goals for managing the state's aquatic habitats, its aquatic wildlife species, and recreational activities on its streams, rivers, lakes, and reservoirs. Moreover, the plan intends to offer a comprehensive vision of what Montanans want from their fisheries as well as strategic goals for realizing this vision during the first decade of the next millennium.

### **Purpose**

This plan has been prepared to serve as a link between Fish, Wildlife & Parks' vision document and the department's six-year and annual operational plans. The fisheries strategic plan expands the broad goals and guidelines of the vision document into more specific directions for the fisheries program over the next ten years, 1999-2008. Once approved, this strategic plan will in turn be used to develop six-year plans and Federal Aid in Sports Fish Restoration grants, which support the strategic plan by translating goals and objectives into specific projects that are part of annual work plans.

### **Guiding Principles**

The guiding principles for formulating this strategic plan are set forth in the mission of the Fisheries Program. This mission has the aim of preserving and enhancing all aquatic species and their ecosystems to meet the public's demand for recreational opportunities while assuring prudent stewardship of aquatic wildlife. The Fisheries Program seeks to accomplish this mission by developing and implementing policies and programs that foster sound management of wild fish populations and their habitats, at the same time that it monitors and regulates angler harvests, maintains recreational activities for anglers, and provides improved public access to fisheries.

### **Outcomes-Based Planning**

The planning process that this strategic plan follows is outcome-based—that is, it focuses on identifying programs' outputs and assessing their success. This approach to planning underscores the department's desire to know what results programs achieve, what impact these results have made on people's lives, and whether programs have successfully addressed relevant issues and problems with Montana's fisheries.

## **Organization**

The four key elements of the Strategic Plan are habitat, fish management, fishing access, and aquatic education. Each of these elements identifies specific needs for enhancing the overall success of the Fisheries Program. Likewise, these four elements form an integrated, comprehensive program for preserving, managing, and enhancing Montana's fisheries.

## **Habitat**

The first of these elements, the habitat element, focuses on protecting and improving the crucial components of good aquatic ecosystems—namely, the physical features of streambeds, rivers, lakes, and reservoirs; water quality; and water quantity. To address these fish-habitat needs, the Fisheries Program has established three broad goals:

- preserve and protect aquatic habitats.
- restore and enhance degraded habitats.
- restore and maintain adequate water flow in streams and satisfactory water levels in reservoirs.

## **Fish Management**

The fish management element has the central purpose of managing the state's fisheries to protect, enhance, and restore populations of native and sports species of fish. The scope of this purpose suggests two major goals:

- provide a diversity of quality angling opportunities through management of self-sustaining wild fisheries and the responsible use of hatchery-raised fish.
- protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure angling opportunities whenever possible and to ensure stewardship of native species.

## **Fishing Access**

The central purpose of the fishing access element is providing the public with easy access to Montana's streams, lakes, and reservoirs. Ongoing needs to maintain and improve existing access sites as well as acquiring additional ones suggest the following goals:

- maintain the existing levels of public access for fishing and related incidental recreational activities on state waters.
- increase the levels of public access for fishing and related recreation on selected state waters.
- provide management and funding for the Fishing Access Site Program to assure continued opportunities for public use.
- protect the public's safety and enjoyment of water recreation through education and enforcement of regulations.

### **Aquatic Education**

The fourth element, aquatic education, serves the function of offering the public educational opportunities for learning about the responsible use of the state's fisheries, waters, and other aquatic resources. A special component of the Aquatic Education Program is the integration of aquatic education into school curricula across the state along with promoting the sport of fishing among both young people and adults. The following goals support these aims:

- develop, refine, and expand Family Fishing Adventures.
- maintain, refine, and expand the Aquatic Education Program for teachers and schools by offering teacher-training workshops to in-service and pre-service teachers by supplying educational materials and equipment to schools.
- maintain, refine, and expand the Aquatic Education Program for the general population of the state by offering courses and clinics, distributing educational materials, and maintaining the presence of Fish, Wildlife & Parks employees in these activities.
- develop a habitat and fisheries ecology program for the general public, including non-anglers.

### **Public Involvement**

A major component of *Fisheries Beyond 2000* is a public review of the goals and outcomes developed for each element of the fisheries program. Likewise, Montana Fish, Wildlife & Parks seeks public input on long-term priorities for the fisheries program. Moreover, the department is interested in discovering which activities the public regards as most important in achieving individual goal as well as how its success in reaching its stated outcomes might best be evaluated.

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## **Fisheries Beyond 2000**

### **Introduction**

Fish have always played an important role in Montana's culture, economy, and environment. Consequently, Montanans have long recognized the value of maintaining an abundance of healthy fish in the state's waterways. Over the years they have gradually come to regard the preservation of these environmental conditions as part of their satisfaction with living in Montana. Today the diversity of fish species, size of different populations, and varied aquatic conditions of Montana's streams and lakes continue to serve as key indicators of the state's environmental, economic, and cultural health. Acknowledging the longstanding significance of these valuable resources, the Fisheries Program of Montana Fish, Wildlife & Parks is firmly committed to playing a strong role in protecting and managing our valuable, sustainable fisheries into the twenty-first century.

An important component of the Fisheries Program's responsibility to manage Montana's fisheries is communicating a clear vision of what its management and educational activities should be for the future. Although this new Fisheries strategic plan retains the essential goals from previous planning processes—maintaining, protecting, and enhancing fish populations and aquatic habitats—its specific purpose is to outline, in some detail, a broad spectrum of activities supporting these goals as well as specific strategies for achieving them. In addition to setting forth these goals and strategies, this plan also describes a wide range of programs for realizing them along with tools for measuring the programs' success.

More importantly, this strategic plan has the purpose of assembling a broad constituency of people working together—biologists, wardens, parks personnel, landowners, department managers, anglers, legislators, outfitters, economists, and many others—to achieve the ongoing goals of managing the state's aquatic habitats, their freshwater species, and recreational activities. As such, the strategic plan offers a comprehensive common vision of what Montanans expect their fisheries to become during the opening decade of the next millennium.

### **Creation of the Department**

The legislative authority for creating the Fish and Game Department (the predecessor to the current department) and defining its primary functions is derived from two key statutes of Montana's

legal codes, as amended in 1995. The first statute, 2-15-3401, MCA, provides for the establishment of the department and the appointment of its director:

There is a department of fish, wildlife, and parks. The department head is the director of fish, wildlife, and parks appointed by the governor in accordance with 2-15-111. The director is the secretary of the commission.

The other statute, 87-1-201, MCA, specifically defines the powers and duties of the department:

The department shall supervise all the wildlife, fish, game, game and nongame birds, waterfowl, and the game and fur-bearing animals of the state and may implement voluntary programs that encourage hunting access on private lands and that promote harmonious relations between landowners and the hunting public. It possesses all powers necessary to fulfill the duties prescribed by law and to bring actions in the proper courts of this state for the enforcement of the fish and game laws and the rules adopted by the department.

In delineating how it might fulfill its various duties, the department came to focus its efforts into three major programs: Fisheries, Wildlife, and Parks, each of which is likewise defined by appropriate statutes. These programs are supported by cooperative activities provided by enforcement, conservation education, and field and centralized services. Thus, the department, in consultation with the state legislature and the public, has developed a variety of programs, activities, and regulations for protecting, managing, and enhancing the state's fisheries, wildlife, and parks.

### **Mission of the Fisheries Program**

The mission of the Fisheries Program is to preserve, maintain, and enhance all aquatic species and their ecosystems to meet the public's demand for recreational opportunities and stewardship of aquatic wildlife. The Fisheries Program accomplishes this mission by implementing policies and programs that emphasize the management of wild fish populations and the protection and restoration of their habitats; by operating an efficient hatchery program to stock lakes and reservoirs where natural reproduction is limited or lacking; by monitoring and regulating angler harvests to maintain balanced ecosystems; and by providing and maintaining adequate public access to fisheries.



## **Historic Fisheries Goals**

The Fisheries Program has previously identified a number of primary goals:

- to expand and improve the availability of fishing opportunities in lakes and streams;
- to protect and restore stream and lake habitats with existing laws, rules, regulations, educational programs, and state-of-the-art technology;
- to determine the public's needs for access to fisheries and provide that access;
- to represent the interest of fisheries in the allocation and development of water resources;
- to involve the public actively in developing policies, regulations, programs, and planning for the fisheries' future;
- to manage the state's fishery resources for their recreational, scientific, and aesthetic purposes, as well as for their inherent value;
- to protect and restore species of concern, as well as threatened and endangered species, regardless of their sportfish potential; and
- to enforce fishing regulations that effectively control angler harvest and protect the state's fishery resources.

## **Legislative Authority**

The legislative authority upon which the Fisheries Program pursues these important goals rests on landmark legislation. The body of this legislation chronicles the ongoing commitment that the state has made over the years to protect, maintain, and enhance its fisheries. Although all fisheries legislation passed to date is too numerous and complex to present here, the following historical overview summarizes some of the most significant legislation. At the same time, individual pieces of legislation suggest the wide-ranging environmental and social conditions that Montanans have considered in attempting to shape the future of their fishery resources.

## Historical Overview

The origin of Montanans' interest in managing the state's fisheries may be found in the historical records of Montana more than two decades before it became a state. One of the bills passed by the first Montana Territorial Legislature of 1864 provided that "a rod or pole, line or hook, shall be the only lawful way trout may be caught in any of the streams of the territory."<sup>1</sup> After Montana joined the Union, this concern for regulating the state's fisheries for recreational purposes gradually expanded to include a wide variety of conservation practices and, subsequently, became codified in a series of laws that created the Fish and Game Department and regulated all aspects of its operations and activities.

Founded in 1895, the Fish and Game Commission initially directed most of its attention to enforcing fishing laws. When the first fish hatchery was built in 1908, however, the Commission extended its role to include stocking fish in lakes and streams. During this period, the hatchery system served as a division of the Fish and Game Department under the Board of Fish and Game Commissioners and the State Game Warden (director). The Commission and the director both had the responsibility of deciding which waters were stocked. By the 1950s, trained biologists were hired to study the relationship between resident fish populations and their habitats. As knowledge of fish biology increased, the role of fish hatcheries began to change. By 1974, hatcheries discontinued stocking streams, diverting their fish production to lakes, reservoirs, and other waters or to the reintroduction of native species. Today, disease prevention and genetics are two important considerations used by the hatchery system to help meet the needs of fisheries managers.

## Long-Term Conservation

More recently, in the 1960s, fisheries biologists conceived of a long-term conservation program to protect the integrity of stream corridors. The program was based on the concept that good stream habitats for fish consist of three essential components: an adequate physical channel for the stream, an adequate quantity of water, and a suitable quality of water.

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<sup>1</sup> Bill Alvord, *A History of Montana's Fisheries Division from 1890 to 1958*, Helena, Montana: Montana Fish, Wildlife & Parks, 1991.

### **Maintaining Stream Channels**

The legislation that resulted from the desire to maintain good physical habitats, *The Stream Protection Act of 1963*, assigned the department the responsibility for protecting fish habitats by regulating activities of various state, county, and local hydraulic projects that would alter the beds and banks of streams. Twelve years later, the state legislature extended protection of fish habitats to include stream projects originating in the private sector. *The Natural Streambed and Land Preservation Act of 1975* delegated regulatory responsibilities to local conservation districts, providing the department with an opportunity to review projects and make recommendations to preserve fish habitats when private individuals' projects would physically alter or modify a stream or streambed.

More recently, *The River Restoration Act of 1989* and its successor, *The Future Fisheries Improvement Program of 1995*, provide funds to agencies and individuals to rehabilitate damaged fish habitats and improve fisheries through a variety of projects, including riparian fencing, channel naturalization, fish screens or ladders, bank stabilization, and so on. A measure of these programs' success is the more than 100 projects partially or fully funded between 1989 and 1996.

### **Providing Adequate Water**

Another component of the conservation program addressed was water quantity. Special legislation in the 1969 legislature authorized the (then) Fish and Game Commission to appropriate water from available sources for twelve designated streams. By 1971, the department had filed instream flow rights (known as "Murphy's Rights" after the name of the sponsor of the legislation) as part of this law. Next, the 1973 legislature passed the Montana Water Use Act, which allows governmental entities to apply for water reservations for various uses, including instream flows for fish, wildlife, and maintenance of water quality. Nearly 330 additional streams have flows reserved under this law. Moreover, the department has agreements to purchase water from reservoirs and, more recently as a consequence of legislation in 1989, to lease water from private water users to be left in streams to augment flows.

## **Protecting Water Quality**

The other element of the state's long-term conservation program is water quality. During the 1950s, Montana began to protect and enhance water quality with a number of laws. By 1957, the department had created the staff position of pollution-control biologist to work with the state health department to monitor water quality in the state's waters. Subsequent state and federal water-quality laws gradually improved the protection of Montana's waters. The Department of Environmental Quality now assumes primary responsibility for protecting water quality.

## **Preservation of Fish Populations**

Other conservation efforts have focused on the preservation and management of various fish populations. One of the most visible is the department's work to manage wild trout fisheries. In the early days of management, the Fish and Game Commission sought merely to stock streams with trout fry and harvestable-size trout to replace those that anglers took. By the mid-1960s, however, research revealed the great potential that fish had to reproduce in the wild, given suitable habitat for spawning and rearing to occur. After the results of a study begun on the Madison River in 1967 revealed that stocking hatchery trout into populations of wild trout reduced the number and vitality of the wild fish, the state virtually eliminated the practice of stocking streams by 1974.

Early activities in fisheries management also included inventorying streams and lakes to determine which species were present and in what numbers. Since fishing pressure was low on most waters during this period, there was little need to "manage" these fisheries. When the state implemented its wild fish policies in the mid-1970s, however, more anglers began to use Montana's fisheries. The increased fishing pressure on wild trout streams necessitated additional management actions. For the first time in the state's history, the human impact on native fish populations, especially on those being considered for listing under the Endangered Species Act, became very important. With support from the governor's office, restoration programs for cutthroat and bull trout were started. Additionally, other species receiving special management as species of special concern or Federally listed species include Arctic grayling, paddlefish, and pallid sturgeon. Whirling disease, first discovered in Montana on the Madison River in 1994, currently challenges the department's conservation efforts. An action plan, formulated in 1996, addresses the urgent need for research about the disease as well as strategies for managing it and communicating information about it to the public.

## **Administrative Structure of the Fisheries Program**

Fish, Wildlife & Parks is a decentralized agency consisting of Helena staff and regional field personnel. The function of the Helena staff is to coordinate state-wide programs, budgeting, planning, and the development of policy. Implementation of most policy and management activities occurs at the regional level.

### **Central Helena Staff**

The Fisheries Division administrator has responsibility for oversight of the entire fisheries program. The assistant division administrator and secretarial staff assist the division administrator in budgeting, planning, and supervision of personnel. The division administrator also coordinates the activities of the four bureau chiefs overseeing habitat, hatcheries, management, and special projects.

### **Support Functions of Other Divisions**

Several Divisions, besides the Fisheries Division, contribute to the Fisheries Program. The angler education coordinator is located in the Conservation Education Division. Similarly, the coordinator of the Fishing Access Program works in the Parks Division. Law enforcement, a vital element in the Fisheries Program, is the responsibility of the Enforcement Division. Finally, significant fishing opportunities are provided on many state Wildlife Management Areas (WMA's), which are managed by the Wildlife Program.

### **Regional Management**

Fish, Wildlife & Parks is divided into seven geographic regions to provide for more direct and efficient management of the state's wildlife and fisheries resources. Each region accordingly is staffed with a regional supervisor, a fisheries manager, and a varying number of biologists, technicians, wardens and parks staff to implement and monitor the established goals and objectives of the Fisheries Program.

## **The Planning Process**

There have been several planning efforts initiated by the Fisheries Program during the past decade. First, a major plan for the whole department was concluded in 1985 with the adoption of the *Design for Tomorrow, 1985-1990*. The plan provided a mission statement, objectives for achieving results, and a list of problems and strategies. The five-year plan was to be continued after that period with revisions and updating of objectives as necessary. The plan also provided the basic structure for the six-year Federal Aid Program which ran from 1989 to 1995.

In 1989, following an internal reorganization in the department, a new description of the Fish Program emerged which provided a restatement of its mission, goals, and bureau programs. This document has provided the basis for a variety of planning documents in recent years.

More recently, a new planning effort was initiated in 1991-92 along with the department's Strategic Plan. In this document the department adopted a new vision statement, mission, and five departmental goals. This new document expanded upon previous planning efforts by providing broad directives for employees to meet new challenges and enable the department to address changing public values toward fish and wildlife as well as increasing demands for public involvement in dealing with issues regarding the management of natural resources. The Fisheries Program and each fisheries region have subsequently used this document to set goals and objectives that complement the department's newly adopted vision statement.

Finally, the most current planning effort undertaken by the Fisheries Program identifies specific outcomes for its programs and measures for how successfully these programs are performing their functions. The preparation of outcomes will involve the public in the planning process. The planning process and the resulting plan are expected to enhance public understanding of the program's activities and the benefits derived from them. At the same time, the division hopes to gain a better understanding of the public's expectations about the division's programs and activities.

### **Outcomes Planning**

The department's Strategic Plan is based on goals that meet the needs of the resource and what the public expects from our efforts. This focuses on identifying the programs' outputs and assessing their success and is called outcomes-based planning. The ultimate measure of this kind of approach to planning is the public's satisfaction with the department's management activities. Also, this approach to planning recognizes that the department needs to know what results its programs actually accomplish, what impacts these results have made on people's lives, and whether programs have successfully

addressed relevant issues and problems with Montana's fisheries.

The outcomes-based planning approach differs from traditional planning processes that the department and other state agencies have used in the past which focus on inputs such as the number of fish stocked or the number of waters inventoried. While these kinds of inputs are critical for any planning effort, they fall short of addressing the public's satisfaction with the department's efforts at addressing various recreational and environmental issues related to the state's fisheries.

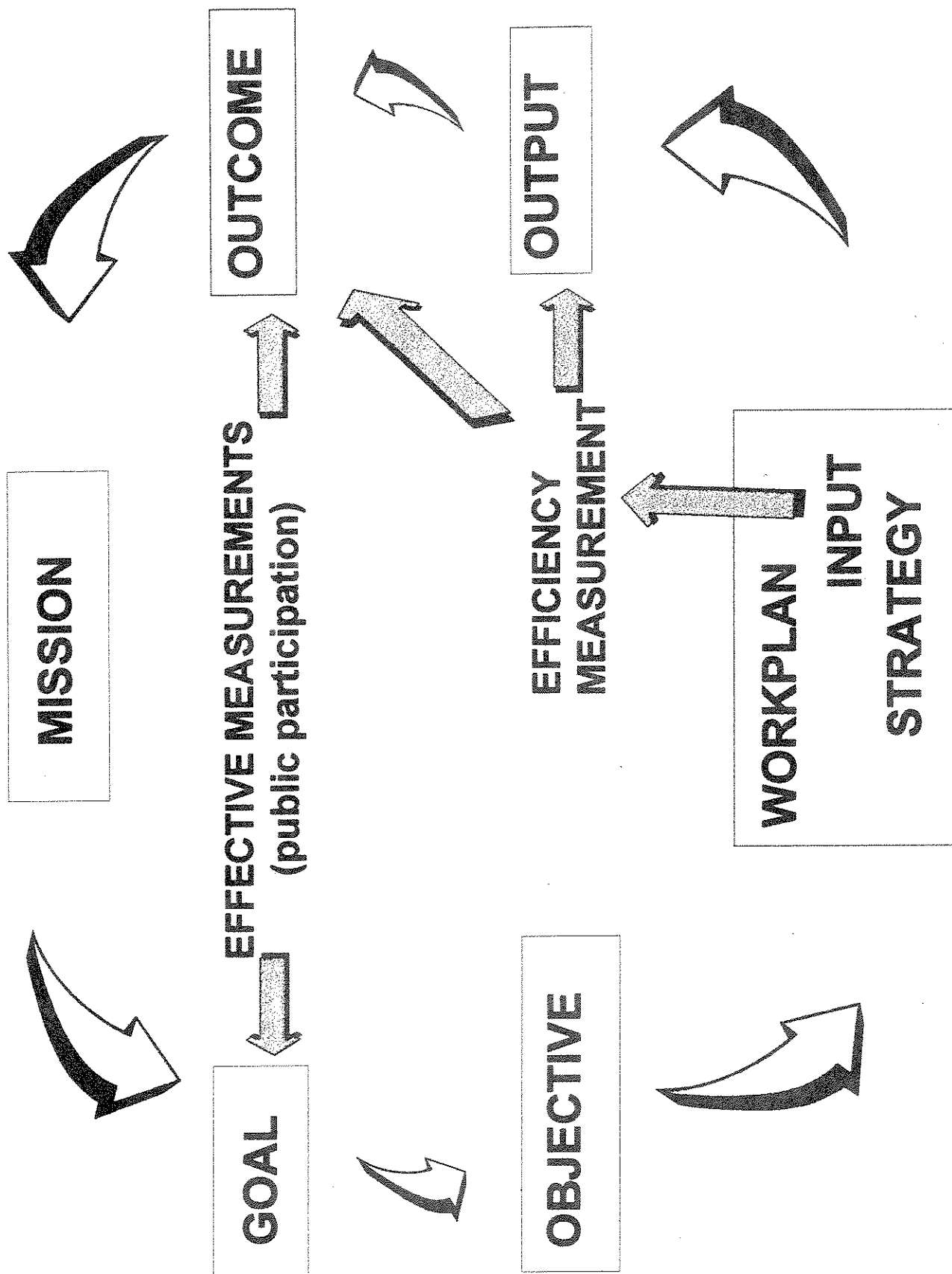
The figure on page 10 illustrates the outcomes-planning process used to develop the Strategic Plan currently employed by the department.

### **Development Process for Formulating the Strategic Plan**

The Fisheries Division's plan for preparing *Fisheries Beyond 2000* is outlined below. This multi-step process incorporates substantial internal and public review of the plan. The description that follows details each step in the process:

1. Step one is the preparation of an initial draft for internal review. Preparing this draft includes reviewing the programs currently in use by the enforcement, parks, and conservation education divisions, as well as reviewing the fisheries division.
2. Step two will involve soliciting from the public written comments on the plan for approximately 90 days after it has been published. To maximize public involvement with the plan, the division will advertise it with press releases and mailings to the department's list of cooperators, who periodically review a variety of departmental activities.
3. Step three will involve summarizing the public's comments for use in preparing the final draft of the plan.
4. Step four will be using the final draft of *Fisheries Beyond 2000* to develop departmental operations and work plans and to write applications for federal aid to fund various programs and activities.

# OUTCOMES - BASED PLANNING PROCESS





## **Organization of the Strategic Plan**

The Strategic Plan is organized into four elements that address various aspects of managing Montana's fisheries: habitat, fisheries management, fishing access, and aquatic education. Each element provides an overview of the issues pertinent to its present operating environment, along with proposed goals for its future operations, desired outcomes from its activities, and performance measures for evaluating the success of outcomes.

### **Habitat Element**

#### **Background and Description of Issues and Environment**

Generally speaking, good fish habitat consists of three essential elements:

1. physical habitat features—landscape features such as streambeds and banks, riparian areas, and cover that, together, provide a favorable environment for fish and other aquatic life to carry out all essential phases of their life cycles;
2. water quality—water of suitable quality for sustaining healthy populations of fish and other aquatic life; and
3. water quantity—adequate water flow in streams throughout the year and satisfactory water levels in lakes and reservoirs to sustain healthy aquatic communities.

All of the above require maintenance of a functioning floodplain as well as judicious land management practices throughout the watershed—including upland areas.

Montana's habitat protection and restoration program is necessary for two reasons. First, fish habitats have been degraded in hundreds of miles of Montana rivers and streams and in some lakes because of land-management practices and other human activities. Equally important, current and projected human uses of the environment have the potential for degrading existing habitats even further. Finally, we have the ability, technology, and obligation to protect and restore these habitats wherever possible.

To address these needs, the Fisheries Program has established three broad goals and identified a number of activities for reaching each goal.

### **Goals and Activities**

Goal One: preserve and protect aquatic habitats

#### **Activities:**

1. administer *The Stream Protection Act of 1963*;
2. work with conservation districts to implement *The Natural Streambed and Land Preservation Act of 1975*;
3. coordinate with various local, state, and federal agencies that regulate activities affecting habitat in lakes and streams;
4. coordinate forest practices, road building, grazing, and so on with state and federal agencies charged with oversight of land management;
5. work with private landowners and organizations to further habitat protection efforts;
6. implement educational efforts stressing the components of habitat and the importance of protecting fish habitats;
7. monitor the conditions of habitats and the resources affected by degraded habitats (e.g., conducting environmental inventories of fish habitats, investigating fish kills, measuring contaminants in fish tissues, and so forth); and
8. establish permanently protected stream corridors in key drainages through conservation agreements with landowners.

Goal Two: restore and enhance degraded habitats

#### **Activities:**

1. revise, evaluate and prioritize habitat projects to maximize benefits relative to investment;
2. administer the Future Fisheries Improvement Program to restore important degraded habitats on public and private lands;
3. provide internal training in the restoration of habitats;

4. coordinate restoration activities with other agencies that administer habitat-restoration programs;
5. monitor the effectiveness of efforts to restore habitats; and
6. work with FWP Wildlife Program to protect and improve aquatic habitats through various means including conservation easements, Prairie Pothole Joint Venture projects, and restoration projects on Wildlife Management Areas.

Goal Three: restore and maintain adequate water flow in streams and satisfactory water levels in reservoirs

Activities:

1. protect the department's existing instream water rights and water reservations;
2. enhance flow in dewatered streams through the water-leasing program or by voluntary means;
3. work with reservoir operators to incorporate management procedures to regulate water flow in streams and water levels in lakes and reservoirs for the benefit of fish and other aquatic life;
4. work with local watershed groups to protect and enhance stream flows through the water-adjudication process; and
5. acquire water for instream flows through the water reservations process or by purchasing stored water.

**Outcomes and Performance Measures**

Outcomes

The desired outcomes from these activities and goals is two-fold. First, the department will maintain or improve the quality of watersheds and fish habitats, thus providing the public with diverse, high-quality aquatic ecosystems and fishing opportunities. Second, the public will recognize the importance of, and participate in preserving, fish habitats and will support the department's efforts to conserve and improve fish habitats. Evidence of public participation in habitat efforts will include formation of watershed groups as well as private/public partnerships dedicated to protecting and restoring habitat.

## **Performance Measures**

Departmental staff will use various quantitative and qualitative measures to gauge how effectively the previously listed activities achieve their desired goals and outcomes. Perhaps the most important measure of success will be the presence of scientific evidence demonstrating that fish habitats in Montana waters are remaining good or improving. Various indices will be used to gauge the quality of habitats and the benefits of habitat projects including riparian health, bank and channel integrity, long-term effectiveness of various habitat treatments and the responses of fish populations to changes in habitat. Public perception of program success and effectiveness will also be measured using various survey tools. Ultimately, we need to know if the public associates improvements in habitat with enhanced quality of their recreational experiences.

## **Fisheries Management Element**

### **Background and Description of Issues and Environment**

The central purpose for managing the state's fisheries is to protect, enhance, and restore populations of native and sport species of fish. Pursuing this goal entails a wide variety of activities. Generally speaking, these activities may be classified as monitoring the life cycles of different fish populations in varied habitats, regulating harvest of native and sport fish, and devising strategies to maintain sufficiently healthy and genetically diverse fish populations to satisfy the fishing opportunities the public demands.

All of these activities involve not only intricate biological considerations, but also a variety of social, political, and economic concerns that, directly or indirectly, are related to one another. First, the department staff use resources to learn about the ecology of fish populations and how to manage them in wild environments. At the same time, the staff disseminates information and strategies for maintaining or recovering threatened populations of native fish species, such as the bull trout and pallid sturgeon. Likewise, they develop methods for enhancing warmwater fisheries and for maintaining the ecological integrity of warmwater fish populations. Still another important issue that the departmental staff faces is defining the role that hatcheries and private ponds will play in future management activities. The need to devise effective strategies for dealing with the illegal introduction of fish and other aquatic species into the state's waters is also crucial.

Equally critical is addressing the public's perceptions about the quality of fishing opportunities— i.e., the impression that fish populations are declining and that fishing sites are becoming crowded. Another public issue that has become prominent is the increased specialization of different angling groups and what impact that specialization has on managing Montana's fisheries. A related issue that requires study is the social conflict among different groups of anglers who feel they are competing for space in crowded streams.

Addressing all of these needs poses critical challenges to the department's resources. Because the demands for managing the state's fisheries exceeds its resources of staff and funding, departmental staff have to set priorities on different initiatives. Consequently, important activities, such as data collection (upon which important scientific research and management decisions rest) may be reduced, and public expectations of services might need adjustment.

### **Goals and Activities**

Goal One: provide a diversity of quality angling opportunities through management of self-sustaining wild fisheries and the responsible use of hatchery-reared fish.

#### **Activities:**

1. develop and implement management plans in cooperation with other divisions, state and federal agencies, and the public for select waters in the state;
2. design and use surveys to assess variations in fish populations, anglers' use of waters, and the amount of fish harvested to evaluate the effectiveness of management efforts;
3. develop strategies to reduce conflicts among user groups and landowners along streams and lakes;
4. develop and enforce recommended commercial and sport-fishing regulations statewide as needed to protect, enhance, and develop fishing opportunities and to protect certain fish species and other aquatic life;
5. enforce fishing regulations, rules, and statutes;
6. operate and maintain efficient cold- and warmwater hatcheries as needed to supply fish for management purposes;
7. develop and implement, in cooperation with other agencies, fish-health research and disease-management strategies;

8. conduct relevant fish-health assessments for state hatcheries and private operators to protect the state's fisheries;
9. regulate fishing contests statewide to protect fishery resources and recreational opportunities;
10. conduct surveys on the uses, preferences, and economic valuation that anglers have for different fisheries resources; and
11. develop and maintain databases and a geographical information system that provides biological, social, and economic data on Montana's aquatic resources.

Goal Two: protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure angling opportunities whenever possible and to ensure stewardship of native species.

Activities (in addition to those listed under Goal One):

1. define and establish native species management areas;
2. develop and implement recovery and protection programs for fish designated as species of special concern, threatened or endangered; and
3. operate and maintain efficient cold- and warm-water hatcheries as needed to supply fish for restoration and research purposes.

### **Outcomes and Performance Measures**

#### **Outcomes**

As a result of the department's various initiatives and activities, the public enjoys a diversity of fishing opportunities that are directly dependent on wild-fish management and the use of hatchery fish. At the same time, the department's conservation efforts enhance the health and survival of native fish species. Consequently, the public supports ongoing endeavors to restore, maintain, and protect the state's variety of aquatic wildlife.

#### **Performance Measures**

The quantitative measures the department's staff use to assess the effectiveness of its program activities include fish-population monitoring and creel surveys. First, it gauges the availability of fishing

opportunities statewide. It measures anglers use of the state's fisheries by computing the number of anglers who fish each season and the numbers of fish they harvest. Likewise, the department collects information about the number of fishing opportunities near population centers available to youth and beginning anglers. It also computes the number of stream miles and acres of lakes and reservoirs restored to the management of native species of fish, as well as the number of fishing sites where management has been altered to resolve a conflict between threatened and endangered species. Finally, departmental staff survey anglers' rates of satisfaction and compute the numbers of anglers contacted by enforcement personnel along with the numbers of citations issued for each type of fishing violation.

## **Fishing Access Element**

### **Background and Description of Issues and Environment**

The essential mission of the Fishing Access Program is to provide the public with access to Montana's streams, lakes, and reservoirs. The program provides recreational opportunities for residents and visitors to the state that exist in few other areas of the United States. These public Fishing Access Sites (FAS) provide fishing opportunities for virtually all of Montana's fish species.

The number of FAS's has grown from a relatively few sites in the 1960's and early 1970's to nearly 300 today. Many of the sites were acquired as donations or at a very minimal cost by the Department. As land values have increased over the past two decades, the cost of suitable FAS's have increased as well. Land values are expected to remain at the current (and higher) levels, and future site acquisition costs will reflect that market trend.

The majority of the funding for the FAS program is generated from anglers license dollars. The funding base is \$1 from each resident fishing license and \$5 from each non-resident fishing license earmarked to fund the program.

Key components of the program involve two primary areas of focus, the acquisition of new sites and the ongoing operation and maintenance (O&M) activities for existing sites. Sites are acquired as suitable land purchase, easement, or lease opportunities become available. Depending upon the location of the site (urban or rural), the amount of use, adjacent landowners, and expectations of the public, O&M responsibilities can be significant at individual sites. Typical activities may include: fencing, vandalism repairs, signs, weed control, latrine pumping, camping fee collection, road/parking areas maintenance, landowner relations, and conflict resolution.

More immediately, maintenance and enforcement budgets are becoming inadequate to provide needed services to current sites because of increased use, more stringent environmental standards, inadequate sources of funding and increased demands by the public for added services. In particular, the commercial use of fishing access sites is an issue that is currently being addressed via a registration process. If it becomes necessary to limit commercial use of fishing access sites in the future, the department may be required to develop a fee structure for commercial activities and establish criteria and regulations for commercial use.

The complexity of these conditions suggests that the acquisition of new access or development of existing sites must be linked to the availability of funds for maintenance, development, and enforcement.

### **Goals and Activities**

Goal One: maintain the existing levels of public access for fishing and related incidental recreational activities on state waters

#### **Activities:**

1. prepare site-specific management and development plans for select fishing access sites; and
2. conduct operation and maintenance activities, including road upkeep, weed control, ramp and dock repair, and litter control.

Goal Two: increase the levels of public access for fishing and related recreation on select state waters

#### **Activities:**

1. identify waters in need of additional access and develop strategies to meet these access needs;
2. prepare site surveys and construction plans, obtain public comments, secure needed permits, solicit bids for construction, and oversee construction;
3. identify and pursue access opportunities to high-quality, non-floatable (small/medium) streams; and
4. identify and pursue alternatives to non-fee title means of obtaining public access to angling waters .



Goal Three: provide management and funding for the Fishing Access Site Program to assure continued opportunities for public use

Activities:

1. develop site-specific management and development plans for fishing access sites;
2. prepare applications for federal assistance to fund the protection of sites and motor-boat projects;
3. develop new funding sources to supplement existing program;
4. explore "partnership" type opportunities with local organizations, counties, towns, tribes, and others for the long-term maintenance of individual FAS's located near interested communities; and
5. proceed with the registration of commercial users of FAS's and other Department lands. Any future fees generated from commercial users of FAS's would be utilized for needed O&M efforts.

Goal Four: protect the public's safety and enjoyment of water recreation through education and enforcement of regulations

Activities:

1. continue with the current design standards and philosophy of constructing ADA accessible latrines and related improvements where practical on all new FAS construction projects;
2. identify and coordinate with the Enforcement Division to provide the level of enforcement presence at FAS's commensurate with the needs of individual sites;
3. identify and respond to public interests and concerns regarding fishing access sites; and
4. develop public support for the operations, benefits, and needs of the Fishing Access Site Program.

## **Outcomes and Performance Measures**

### **Outcomes**

As a result of the Fishing Access Site Program, anglers enjoy a diversity of fishing opportunities throughout the state that might otherwise remain unavailable. At the same time, these fishing access sites provide the public with a variety of incidental, non-angling recreational activities by maintaining access to Montana's waters.

### **Performance Measures**

A variety of measures is useful for assessing how effectively the Fishing Access Site Program is working. One is the number of miles of streams and acres of lakes and reservoirs open to public recreation. Another is the amount of use the public makes of fishing access sites. Equally important are the percentage of users who felt that fishing access sites met their needs and the percentage of users satisfied with the facilities they used. Still another measure is the frequency of reported conflicts between different users and between users, landowners, and commercial outfitters. Other measures include the number of users contacted by enforcement personnel and the number and kinds of violations cited. Also significant are the number of successful cooperative ventures in both acquisition and maintenance of fishing access sites.

## **Aquatic Education Element**

### **Background and Description of Issues and Environment**

The Aquatic Education Program was developed to offer the public opportunities for learning about the responsible use of the state's fisheries, waters, and other aquatic resources. Although it sponsors a variety of educational activities, the program has two fundamental purposes: to integrate aquatic education into school curricula across the state and to promote the sport of fishing among both young people and adults.

The need for an aquatic education program has often been demonstrated to anglers, departmental staff, and fishing clubs. Over the years, a good deal of evidence suggests that some members of the

public have unwittingly engaged in practices that significantly misuse or abuse the state's aquatic resources and thus threaten their future for recreational activities. In an effort to preserve these irreplaceable resources, the Aquatic Education Program has initiated a variety of activities designed to enhance the public understanding of the state's fisheries and water-quality issues and thereby cultivate informed, ethical behavior among those using these resources. The benefits to be derived from these educational activities include promoting a better understanding and enjoyment of Montana's aquatic environment, improved angling skills, and improved water safety.

### **Goal and Activities**

#### **Goal One: develop, refine, and expand Family Fishing Adventures**

##### **Activities:**

1. conduct youth fishing workshops;
2. recruit and train new, volunteer fishing instructors while maintaining an active core of instructors;
3. recruit and train new schools annually to participate in the Hooked on Fishing—Not on Drugs Program;
4. promote FWP's free-fishing day program;
5. develop new fishing tackle loaner sites each year in Montana communities;
6. print and distribute triennially the *Montana Angling Youth* newsletter for pre-school through third-grade children to present topics such as fish identification, fishing techniques, water safety, fishing regulations, and other topics related to fish and aquatic ecosystems; and
7. develop/implement fish management plans for waters in urban/city areas in each region of state which are easily accessible to youth and adult anglers.

**Goal Two: maintain, refine, and expand the Aquatic Education Program for teachers and schools by offering teacher-training workshops to in-service and pre-service teachers and by supplying educational materials and equipment to schools**

##### **Activities:**

1. train educators annually at Project Aquatic Wild and Project Wet workshops;
2. produce and distribute new educational aids, such as posters, brochures, and activity guides;

3. maintain current levels of participation in and statewide coordination of the Riverwatch monitoring programs;
4. develop the aquatic section of an integrated natural resources curriculum specific to Montana for state educators; and
5. develop lake ecology curriculum to be used by K-12 Montana educators.

Goal Three: maintain, refine, and expand the Aquatic Education Program for the general population of the state by offering courses and clinics, distributing educational materials, and maintaining the presence of the Fish, Wildlife & Parks employees in these activities

Activities:

1. conduct introductory workshops for adult angler groups with special emphasis on women, minorities, and persons with disabilities;
2. work in cooperation with the Department's regional offices and hatcheries to develop aquatic education displays consistent with the goals of the Aquatic Education Program;
3. develop lake database including site-specific fishing information for anglers and fisheries management; and
4. conduct aquatic education and fisheries management training for FWP field staff.

Goal Four: develop a habitat and fisheries ecology program for the general public, including non-anglers.

1. develop short course on fisheries and lake ecology for adult continuing education;
2. develop educational opportunities for landowners and developers on riparian management; and
3. increase fisheries information activities for adults using tools such as FWP web site, press releases, Montana Outdoors, and other media.

### **Outcomes and Performance Measures**

#### **Outcomes**

In providing the public, both young people and adults, with opportunities to learn about the state's aquatic ecosystems and their importance and in fostering fishing skills and water safety, the

Aquatic Education Program will enhance the public understanding of Montana's natural and cultural resources. This appreciation for the state's aquatic resources will in turn enhance the public's ability to make informed decisions about using and preserving these resources.

#### Performance Measures

The success of the Aquatic Education Program may be assessed by a variety of quantitative measures each year. These include the number of schools recruited to participate in the program, the number of educators and volunteer fishing instructors trained, the number of workshops conducted, the number of fishing-tackle-loaner sites developed, and the number of people participating in the Riverwatch monitoring programs statewide. Other measures involve monitoring the publication and circulation of the *Montana Angling Youth* newsletter, the production and distribution of educational materials, and the promotion of the new Family Fishing Adventures Program.

#### Implementing the Strategic Plan

This strategic plan identifies issues and challenges facing management and stewardship of Montana's fisheries resources. This is an adaptive document which will be reviewed and revised during the 10 year planning horizon, based on public feedback and on changing resource issues and priorities.

The strategic plan will be used to develop six year work plans, Federal Aid in Sports Fish Restoration Grants, and annual work plans. Thus, this plan will provide Fisheries Program direction for planning, budgeting and evaluation. This plan will also promote communication outside of the Fisheries program and, most importantly, will lead to improved management of Montana's valuable fisheries resources.