DRAFT

Program Groups

Fisheries

Game

Wildlife Diversity

Wildlife Damage

Habitat Management
and
Acquisition

Wildlife Advocacy

Conservation
Law Enforcement

Communications

Administrative
Services

Ecosystem Management Zones

Black Hills

West River

Missouri River
Breaks

East River

Adaptive Management System

Strategic Planning Framework

Division of Wildlife

Serving People, Managing Wildlife

South Dakota Department of Game, Fish and Parks

November 2006 – Version 06-2

SouthDakota
Wildlife Division
Department of Game, Fish and Parks

Improving the quality of human life through effective management of South Dakota's fish and wildlife resources…

About This Document

This document is for general, strategic guidance for the Division of Wildlife and serves to identify the role that Division of Wildlife plays, how we function and what we strive to accomplish. The purpose of this document is to communicate our **Mission** and our **Vision** for the future. This document identifies the philosophies (**Our Values**) which guide the Division of Wildlife's programs and services and documents some of the **issues** currently facing the Division of Wildlife. The document provides the foundation for a planning process to successfully accomplish our Mission and Vision (**Leadership Direction**). And lastly, this document outlines Division of Wildlife's **Ecosystem Management Approach, Planning Process and Program Structure** designed to deliver products and services for accomplishing our Mission and Vision.

The planning process is more important than the actual plan documents. By itself the strategic plan documents are of little value; the value is in implementation. Therefore, we will emphasize **working cooperatively with interested publics** in both the planning process and the regular program activities. The planning process will emphasize **efficiency** by eliminating unnecessary paperwork and reducing time spent on meetings by combining planning meetings with regularly scheduled meetings whenever possible. The planning process will also emphasize **effectiveness** by working to identify meaningful **performance measures**, paying close attention to **evaluation** of our efforts.

Evaluation is designed around two basic questions:

Are we doing things right?
Are we doing the right things?

The first question is related to efficiency and effectiveness and centers around managing resources using sound biological and scientific principles and techniques. Are we using the best survey technique? Are our programs actually producing the desired results? Are the cost/benefit ratios of our programs favorable? These are just some of the types of specific questions that will be asked in answering the first question–Are we doing things right?

The second question is more difficult. Public involvement will play a critical role in answering this question. Are our products and services consistent with our Mission, Vision and Values? Are our products and services the "right" products and services for our publics? Will our programs and activities provide quality fish and wildlife resources and benefits for the current and future generations of people? These are just some of the types of soul-searching questions that will be asked in answering the second question–Are we doing the right things?

Our goal is to improve our efficiency and effectiveness at providing quality service to our customers.

Department of Game, Fish and Parks
Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

An open letter to Division of Wildlife employees and other interested people:

I recently heard the president of an expanding South Dakota business speak about what made his company so successful. In his mind, the formula for business success was quite simple. First, he said, you need a vision. Then, you need a plan. Finally, you must have discipline to stay with the plan.

This formula may sound overly simplistic, but I think it provides a proper introduction to the Division of Wildlife's planning process. The bottom line of our business is different, but our approach to success needs to be much the same.

In spite of the many success stories we can point to in our past, we are reminded frequently, and sometimes painfully, that success is not guaranteed in today's rapidly changing social, technological and natural resource environment. We need a management system that easily adapts to such a changing environment.

Take time to read our mission. This is the business we are in. It is what we are supposed to be doing. This is what motivates our staff. It is the hub around which our planning process continuously revolves.

What does a successful future look like for the Division of Wildlife? Read about it in the Vision Statement. This is the direction we want to go and what it looks like when we get there. It is important to us and provides purpose for our actions and commitments. It also embodies the values, which have been identified as guiding principles for our division.

The strategic plans that we develop for and within our programs are more than blueprints for accomplishing our mission and turning our vision into reality. They represent first and foremost a continuing process of analyzing the environment in which we do business and strategically thinking about our management challenges, goals and actions. They also represent a wide array of programs provided by the Division of Wildlife and describe the major issues and challenges that we must work on.

Our initial strategic planning began in 1990 with a Systematic Approach to Management (SAM). Much of that initial strategic planning effort is still relevant and utilized in this document. I would like to thank all the Division of Wildlife employees and any others who contributed so much of their time and efforts to getting this process started. My commitment is that it will never end.

Sincerely,
Doug Hansen, Director

South Dakota Division of Wildlife

Mission Statement

SERVING PEOPLE, MANAGING WILDLIFE

The Division of Wildlife will manage[1] South Dakota's wildlife and fisheries resources and their associated habitats[2] for their sustained and equitable use, and for the benefit, welfare, and enjoyment of the citizens of this state and its visitors[3].

---

[1] **"Manage"** includes many statutory references to the acts of conserving, protecting, restoring, propagating, controlling, harvesting, preserving, distributing, transporting, and disposing of the public's wildlife. This includes the acquisition and management of land and water for the protection of fish and wildlife and advocating public policy that benefits wildlife. It also refers to seasons, rules, and enforcement actions taken to regulate hunters, anglers and commercial users in order to limit harvest in ways that maintain healthy and sustainable wildlife populations.

[2] **"Wildlife and fisheries resources and their associated habitats"** include virtually all publicly owned wild animals from deer to minnows, eagles to crayfish, earthworms to insects. Under the state endangered species act, wild plants are also identified as being of public concern and under jurisdiction of both Game, Fish and Parks Department and the Department of Agriculture. Jurisdictional exceptions include domesticated wildlife that are regulated by the Animal Industry Board, and weeds and pests that are under the authority of the Department of Agriculture. Jurisdiction over migratory wildlife like ducks, geese and songbirds; and federally threatened and endangered species is shared with the United States Fish and Wildlife Service who has primary authority over these creatures.

[3] **"Sustained and equitable use…benefit, welfare and enjoyment of the citizens of this state and its visitors."** The quality of life in South Dakota is enhanced by having abundant and diverse wildlife populations. The Division of Wildlife attempts to provide fair and equitable opportunities for wildlife users through regulations and programs that ensure viable wildlife populations for future generations, and strives to enforce these regulations in a fair and impartial manner. Uses include not only hunting, fishing and trapping but also other activities like birdwatching and wildlife photography. The Division also provides public services like wildlife damage control, education programs, hunting and boating safety instruction, publicizing and promoting outdoor activities and resources, and certain community law enforcement activities. All these services are intended to inform, assist, and protect the people of South Dakota, their visitors and their property.

South Dakota Division of Wildlife

OUR VALUES & GUIDING PRINCIPLES

- **Wildlife enhances the quality of life in South Dakota.**
  Therefore We Believe…
    - in providing for and sustaining the **diversit**y of our wildlife heritage for present and future generations.
    - that the future of wildlife depends on a public that **appreciates, understands and supports wildlife**.
    - in **education and involvement** of youth and adults in wildlife and wildlife-related activities.
    - in providing **quality customer service**.

- **Wildlife is a public trust resource.**
  Therefore We Believe…
    - that wildlife must be managed **for all citizens and visitors**.
    - that reasonable **regulations are necessary** for equitable distribution of the benefits of wildlife and to promote ethical and safe behavior**.**
    - that the **costs** of wildlife management should be **shared by all** who benefit.
    - in the **publics' right to participate** in decisions related to wildlife issues.

- **Hunting, fishing and trapping are fundamental wildlife management practices and legitimate recreational activities.**
  Therefore We Believe…
    - that the **hunting, fishing and trapping heritage** in South Dakota must be preserved.
    - in **fair and impartial** wildlife regulations and law enforcement that **serves and protects** the public interest.
    - in the management of wildlife in accordance with **biologically sound principles.**
    - in **professional and well trained staff** who are competent, accountable and empowered.

- **Land stewardship and partnerships with private landowners are essential to sustaining wildlife for the future.**
  Therefore We Believe…
    - that wildlife benefits and economic progress are **compatible.**
    - in people **sharing in the responsibility** for this resource.
    - that the **stewardship role played by landowners** in South Dakota is critical to the future of wildlife and deserving of recognition and respect.
    - that wildlife damage management is a **cooperative responsibility** of state, federal and private interests.

South Dakota Division of Wildlife

VISION FOR THE FUTURE

Every individual sees things through their own eyes. They see the future according to their own set of values, the environment that surrounds them, and their personal goals or dreams.

The Division of Wildlife is comprised of many individuals. Collectively, they are responsible for managing wildlife resources that belong to all citizens of our state. Every citizen has a stake in how we manage wildlife resources.

Through the many eyes of individuals within the Division of Wildlife, and on behalf of the wildlife resources for which we are responsible and the citizens who we are responsible to, **we envision a future in which:**

essential habitat is abundant and well cared for on public and private landscapes so that a diversity of wildlife is flourishing and living in harmony with other uses of the land and water.

there is strong public sentiment that wildlife as a public trust resource is of high value to our society; and that hunting, fishing, trapping, and other wildlife-related activities are vital parts of South Dakota's heritage, economy and quality of life that must be actively protected and preserved.

the Division of Wildlife is a highly respected agency that is well known locally and nationally for:

strategically planned, science-based management recommendations and practices;

the always improving efficiency and effectiveness of its operations; and

the quality, timeliness and friendliness of its service to its employees, citizen stakeholders, and resource management partners.

SERVING PEOPLE, MANAGING WILDLIFE

ISSUES, CHALLENGES & OPPORTUNITIES

The Department of Game, Fish and Parks' Division of Wildlife has two very important jobs. One is the legal responsibility to manage wildlife and fisheries resources in South Dakota. The other is to provide efficient, effective service to the many users of these resources.

Sometimes the two jobs are easy. The people who use these resources are aware of their value to the quality of life we enjoy. They are more than willing to work with the Division of Wildlife to protect and sustain them.

Sometimes the two jobs are difficult. There are many different user groups, and each group can have different priorities and objectives then the others. These can clash making tough choices in how best to proceed with wildlife management.

This section identifies some of the major issues, challenges and opportunities facing the Division of Wildlife. Classification of the issues, challenges and opportunities is quite difficult because many of the topics are related. Also, these topics are not easily grouped under our program structure, but instead often cut across many programs. However, to be an effective agency in the future we need to be continuously solving today's issues, challenges and opportunities in a proactive manner.

1. Agency Image

Agency image is a combination of expertise, based on credibility of information provided by staff, and trust, which is derived from the way an agency operates. Having a positive agency image is a critical factor for being an effective agency. Agency image will depend largely on Division of Wildlife's response to other issues, however, strategies can be developed to directly address Division of Wildlife's image. Strategies to address Division of Wildlife's image involve improved public involvement and communication efforts. The following publics are listed as important to focus on: (1) traditional wildlife sports groups such as anglers, hunters, and trappers, (2) nontraditional wildlife enthusiasts such as wildlife watchers, wildlife photographers and people interested in nature study, (3) landowners, farmers and ranchers (4) youth, (5) government/legislators, (6) business community, (7) education community, (8) Native American tribes, and (9) division staff.

2. Anglers/Hunter/Trapper Ethics and Behavior

Hunter and angler ethics/behaviors have been noted as problematic by a number of publics: anti-hunters, non-hunters, landowners and hunters/anglers themselves. As the agency responsible for managing fish and wildlife it is clear that improvement in this arena will be a step in the right direction for improving overall agency image. The following specific behaviors have been identified as possible problem areas to consider: (1) road hunting, (2) trespass, (3) illegal behaviors, (4) littering, (5) rude and/or offensive angler or hunter attitudes and behaviors which displays disrespect for non-anglers and non-hunters, landowners and wildlife, and (6) improper disposal of offal. While law enforcement can address some of the problems associated with illegal behaviors, this challenge will best be solved by various education strategies.

3. Anti-hunting Movement

The anti-hunting movement has put a number of wildlife management agencies on the defensive over various wildlife management-related issues. As a result much time and money has been expended by the agencies in countering the attacks. This issue has potential to affect a number of current Division programs as well as being related to a number of other possible issues facing the Division. The issue before Division of Wildlife is to determine how the agency should respond to the anti-hunting movement. Division staff has identified several potential areas vulnerable to attack by the anti-hunting movement: (1) animal damage control programs, (2) trapping in general, (3) lack of data to justify certain seasons/limits, (4) fishing tournaments, (5) archery season, (6) hunting in state parks, (7) aerial hunting of coyotes, (8) varmint hunting, (9) highly visible hunts, (10) lack of adequate non-game and endangered/threatened species programs, (11) trophy hunting and management, (12) wounding/crippling of wildlife, and (13) hunter ethics/behavior.

4. Meeting the Needs and Desires of South Dakota Citizens and Visitors

Anglers, hunters and trappers continue to be the major benefactors of Division of Wildlife and therefore responding to their needs/desires is a continuing responsibility of Division of Wildlife. The following is a list of potential sub-issues related to meeting the needs/desires of anglers/hunters/trappers: (1) declining participation, (2) access to private lands, (3) adequate fish and game numbers, (4) response to complaints, (5) providing information and opportunities for participation, (6) regulations, (7) fish and game numbers and distribution don't often match anglers/hunter needs, (8) trophy animals, and (9) identifying needs and desires. Some of these sub-issues are related to problems of crowding and subsequent concerns of residents over the number of non-resident anglers and hunters.

Non-Hunters/Anglers: There is a growing number of people who do not hunt or fish but enjoy other wildlife oriented pursuits such as nature study, photography, bird watching, butterfly watching, etc. These groups of people will want viewing opportunities and information on wildlife and have a focus on preserving all wildlife species.

Special Interest Groups: The list of special interest groups is too numerous to list ranging from groups focused on specific species (e.g., ducks, pheasants, elk, bass, trout, etc.) or specific hunting/fishing method (archery, muzzleloader, crossbow, fly fishing) to a wide range of other groups, organizations and agencies with some interest on how wildlife should be managed or groups wanting some type of preferential treatment of exemption from regulations. Each group has its own agenda, which may conflict with management objectives and often conflicts with other groups' interests.

5. Wildlife Damage / Human-Wildlife Conflicts

Different publics have conflicting opinions concerning philosophy and methodology for dealing with wildlife damage or other problems. Issues of compensation for wildlife damage and amount and type of assistance provided to prevent or manage wildlife damage are controversial. Most responses to human-wildlife conflicts will depend on the specific species involved, therefore the following species are listed as potential problem species: deer, elk, antelope, mountain lion, turkey, pheasant, coyote, fox, beaver, raccoon, porcupine, rabbit, skunks, and geese.

Social and Political Carrying Capacity of Game Species. Good game management has brought back many numerous game species. However, though the habitat may be there to support the present numbers or more, some game populations have reached the social/political carrying capacity for the non-hunter. And as human populations increase and encroach onto more wildlife habitat, human-wildlife conflicts will increase. This situation will cause conflict

between groups that want to see increased numbers of game species and other groups that are experiencing wildlife problems and want reductions in certain wildlife populations

6. Landowner Issues

The majorities of hunting opportunities are and will continue to be under private control. Landowners are and will continue to be major players in providing fish and wildlife benefits to the people of South Dakota. To be effective, Division of Wildlife must develop and maintain good relations with landowners. The following are some concerns that have potential to develop into an issue: (1) conflicts with hunters, (2) problems with wildlife, (3) wetlands or other land regulatory activities by local, state or federal agencies, (4) response to complaints, (5) land acquisition, (6) privatization of wildlife, and (7) endangered/threatened species.

The increasing pressure to commercialize wildlife. There is a strong desire by landowners to own the wildlife on their land (e.g., establish season dates, sell permits, determine who can even get a permit, etc.). Also, the increasing commercial value of access has not only increased the desire of landowners to want to sell limited hunting licenses to the highest bidder, but it is steadily reducing the amount of private land open to the general public. Another aspect of commercialization is the desire by some landowners to introduce exotic game on their hunting preserves, which can subsequently escape and become established harming native species or can introduce new wildlife diseases into native populations. Decisions to be made include the types of programs offered to provide affordable hunter access and programs to foster good working relations with landowners.

Issues concerning law enforcement activities. Some of the details include Conservation Officers entering private land (Open Fields Doctrine) to check licenses, conservation officers carrying side arms and public relations in general. This issue may stem in part from the desire of some landowners to own and commercialize wildlife on their land, but Conservation Officer behavior has become a hot topic for our agency in recent years. Decisions to be made include making a correct assessment of the underlying issues and problems and the most effective actions and responses to be taken by our agency to address the "real" problems contributing to this issue.

7. Endangered/Threatened Species

Endangered/threatened species management (and the Wildlife Diversity Program) has the potential to become controversial due to philosophical differences among different publics. Any species on the Federal threatened or endangered species list or any species considered for listing that threatens landowners “rights” or other resources when the species is present has the potential to be controversial. Meeting the challenges of providing information and education about the benefits of wildlife diversity and implementing management actions may be difficult.

Prairie Dog Management: In spite of having a South Dakota prairie dog management plan, which was controversial, this will continue to be an issue. Each side will always be viewing any prairie dog management action as either too much or too little. The prairie dog is a species that due to conflicting viewpoints will always be controversial. The management plan calls for control methods to be used when prairie dogs reach a certain high number and protection strategies for when they reach a certain low number. Some specific issues include type of survey method to use for estimating prairie dog numbers (people will always be suspect of the data used to make management decisions) and numerous management decisions on where and when to either control or protect prairie dogs in specific situations.

8. Invasive or Exotic Species / Wildlife Diseases

The threat from invasive or exotic species and wildlife diseases carries a constant threat to the well being of wildlife populations and habitats. The types of threats from introduced

species or diseases are numerous and the negative impacts can be great. The numbers of species that may cause problems are too numerous to list, but a short list of species that carry a threat to South Dakota are: leafy spruge, purple loosestrife, Canada thistle, Eurasian water milfoil, zebra mussel, rusty crayfish, spiny water flea, Asian carp, whirling disease, West Nile virus, Dutch elm disease, and chronic wasting disease (CDW).

9. Habitat Degradation

Fish and wildlife habitat is being lost or degraded by human uses of land and water. It will be increasingly difficult to provide adequate fish and wildlife related opportunities. Problems such as drainage and filling of wetlands; pollution of wetlands, lakes and rivers caused by feedlots, landfills, private garbage pits, etc.; loss of grasslands; degradation of riparian areas; shoreline alteration; and expansion of human populations (particularly in the Black Hills region of South Dakota) all contribute to overall habitat degradation.

Power and Bio-fuel Development in South Dakota. If not designed with wildlife resources in mind, power plants can create many types of human-wildlife conflicts. A relatively new aspect of power develop in South Dakota is the growing number of wind-power turbines and potential associated wildlife issues. Another potential issue will be the growing number of ethanol and other bio-fuels plants and their potential effects on wildlife habitats.

10. Public Land Acquisition and Current Ownership

The ability of GFP to purchase/lease land for the benefit of wildlife and sportsmen is an issue. Some groups believe GFP should not own land, others believe that GFP should focus on long term lease arrangements. Recent purchases by GFP in western South Dakota have created considerable controversy. GFP also has land in or adjacent to urbanized areas that provide little wildlife/hunting value. Some items GFP will need to consider in the future include prioritizing the habitat types to purchase/lease that are most important to meeting management objectives, and developing a mechanism to determine if current holdings are still providing important wildlife/hunting benefits.

11. Genetic Integrity of Natural and Introduced Wildlife and Fisheries Populations

Genetic considerations are important not only with threatened and endangered species, but also with all wildlife managed by GFP. Managers are constantly making decisions (animal harvest, fish stocking, reintroduction, and land management practices of burning, haying, grazing and pesticides) that impact the genetic makeup of wildlife populations and habitat. If genetics are not considered in such decisions, then the uniqueness and viability of existing populations can be imperiled by in-breeding, bottlenecks, out-crossing, or gene dilution. As genetic testing technology becomes more and more available and usable, the decisions made by management agencies like GFP will become increasingly scrutinized from a genetic standpoint.

12. Native American Jurisdictional and Cultural Issues

The jurisdictions of some important recreational areas in South Dakota are being challenged in court by Native American tribes. This process will likely keep tensions high between recreational user groups and native Americans. Improving relations between Native Americans and Division of Wildlife will be a long-term process.

13. Future Funding of Division Activities

Maintaining budgetary control will be related to Division of Wildlife's success at solving many of the above issues. Another funding issue is maintaining a user-pay funding process in face of potentially declining numbers of anglers/hunters/trappers and increasing costs. Also being considered on a national level is some type of user-pay system for non-game species of fish

and wildlife, tapping into providing services to non-consumptive users of wildlife (e.g., bird-watchers, nature photographers, nature lovers). Along these lines is the problem of funding programs and projects not directly related to providing fish and wildlife benefits such as staff training or education programs.

There are also positive aspects to this issue, namely increased opportunities for nonuser-pay funds, which are compatible with the public's expectations and GFP's legal responsibility to address the needs of all species of fish and wildlife and their habitats in the state. These funding sources provide an opportunity to reach out to users who do not contribute via the purchase of hunting or fishing licenses, but are not contributing as federal taxpayers through these new earmarked funding sources for species of conservation need.

Potential collapse of CRP and subsequent loss of habitat and funding. South Dakota is facing a potential significant loss of CRP in the next couple of years, which will greatly impact pheasant production (GFP's main source of income) and our hunter access program. Decisions to be made may include where to cut back in services and programs if funding were to significantly fall, what types of programs to implement to help off-set the loss or CRP, and considerations of increases in license fees.

14. Employee Recruitment and Retention

Due to higher wages offered by surrounding states it has become increasingly more difficult to hire and keep qualified people. Losing highly trained staff represents a significant cost to GFP. Until the State of South Dakota addresses this issue via changes in salary policy, GFP will need to find creative ways to attract and keep qualified staff.

Underlying Trends/Factors

The following are some societal trends that will affect fish and wildlife management in South Dakota and in some cases are underlying factors in many of the issues Division of Wildlife faces.

(a) Increasing urbanization and development has been an underlying factor in a number of issues facing fish and wildlife management.
(b) Increases in the number of single-parent and two-wage earner families may decrease opportunities for young people to learn fishing and hunting skills.
(c) Increases in competing recreational opportunities for young people may reduce participation in fishing and hunting thereby decreasing future support for these activities.
(d) Changing demographics – aging.
(e) Downturns in the economy will pit economic development against environmental issues and wildlife management efforts.
(f) Loss of family farms/ranches and difficult economic times for family farmers/ranchers increases the likelihood of charging for access. This trend reduces access for residents unable or unwilling to pay access fees and increases the conflict between residents and non-residents because non-resident are more willing to pay high access fees.

South Dakota Division of Wildlife

LEADERSHIP DIRECTION

Our Strategic Commitment…

…is to continuously improve efforts to foster and maintain an organization that efficiently achieves Division of Wildlife's mission while providing for an effective public participation role in fish and wildlife programs.

…is to provide leadership in the following areas:

Customer Relations – Emphasizing the goal of satisfied customers, Division of wildlife will use tools and strategies from the field of human dimensions to identify group and individual views, understand values, wants and needs for fish and wildlife and incorporate these views and values in our decision process within sound biological boundaries. This process will provide improved customer services valued by South Dakota residents and its visitors.

Allocation – Emphasizing the value and importance of South Dakota's natural resources, Division of Wildlife will fairly allocate the fish and wildlife to sustain current and future uses. Division of Wildlife will emphasize quality of experience rather the quantity of harvest or use, balancing ecological science with human values, economics, public safety, culture and ethics in the process. Division of Wildlife will make equitable, scientifically sound decisions in a socially responsible way with heavy emphasis on public participation and good communication. There will be adequate public access to land and waters so people can enjoy natural systems and fish and wildlife rather than worry about whether they are getting their "fair share" or worry about competing uses.

Public Involvement – Emphasizing the goal of building trust, Division of Wildlife will implement a range of public participation strategies to build broad-based support for stewardship of natural ecosystems including fish and wildlife. With this process, most people will agree that they had a chance to state their concerns and that their concerns were understood, evaluated and considered. Most will be satisfied they were involved in the process, even if they are not satisfied with the outcome because it will be evident that final decisions were made in the overall public interest with adequate concern for long-term stewardship of the state's fish and wildlife resources and associated benefits.

Planning and Evaluation – Emphasizing the goal of being proactive on issues, Division of Wildlife will implement and maintain a dynamic and flexible planning process accessible to all interested people. The planning process will set clear, attainable objectives, assign priorities and identify appropriate performance measures to evaluate progress. Focus will be on continual improvement based on critical evaluation of progress. This process will efficiently deliver the programs necessary to achieve Division of Wildlife's mission. Division plans will be clear and well known to our members and public alike.

Program Support – Emphasizing an ecosystem approach, Division of Wildlife will continually seek to expand our base of financial support beyond anglers, hunters and trappers recognizing that all South Dakota residents seek and receive benefits from wise natural resource management. Division of Wildlife will focus attention on people's shared interest in natural ecosystems and nurture support to sustain those interests while recognizing and balancing those interests with the agricultural and economic development needs of South Dakota residents. In managing the state's fish and wildlife for the benefit of the people, Division of Wildlife will clearly and completely account for all expenditures of funds. Recognizing the strong interest in fish and wildlife, division staff will work closely with individuals or groups in the private sector on programs with a shared purpose.

Empowerment – Emphasizing the goal of efficiency, Division of Wildlife will support and foster the efforts of division members to fulfill our vision. Empowerment will be achieved by: 1) providing every staff person with the responsibility, authority and resources needed to do their job; 2) emphasizing participatory management styles and staff participation in decisions that effect their lives and job; 3) encouraging members to aggressively pursue objectives without fear of failure; and 4) recognizing and rewarding superior performance. Each staff person will understand assigned roles in the division and will enjoy collegial trust and respect. This process will produce dedicated staff working to achieve Division of Wildlife's mission.

Staff Development – Recognizing the importance of having effective staff to achieve our mission, Division of Wildlife will offer encouragement and opportunity for members to develop technically, grow personally and pursue career choices through continuing education and training. This process will produce technically qualified and credible staff with the necessary skills to achieve Division of Wildlife'' mission.

Recruitment – Emphasizing the goal of being proactive, Division of Wildlife will recruit qualified people from a broad range of disciplines, including such fields as communication, sociology and economics, trained to meet the new demands of managing fish and wildlife in the 21st century. Division of Wildlife will maintain a close working relationship with South Dakota's universities in curriculum development and providing research opportunities to ensure that potential future recruits are qualified. Division of Wildlife will place an emphasis on hiring and promoting the best qualified people based on skills, education and potential in developing and maintaining a diversified team of resource managers ready to meet the challenges of the 21st century.

If successful, Division of Wildlife staff will experience the pride and satisfaction of exemplary public service, cheerfully rendered, and the public beneficiaries of that effort will realize that they have been well served.

South Dakota Division of Wildlife

ECOSYSTEM MANAGEMENT APPROACH

South Dakota ecosystems have been strongly impacted by humans. We have dammed rivers, drained wetlands, cut timber, mined the landscape, built roads, introduced non-native species, and plowed, farmed and grazed the grasslands. All these activities are done to support the current lifestyles of humans. However, if not done wisely these very activities can lead to degraded ecosystems and reduced ability for these ecosystems to support life.

During the twentieth century people began to realize the dangers to the ecosystems and take action. We now have many rules, regulations and restrictions on what can and can not be done to the land. We have applied science to help understand the complex functioning of the ecosystems that sustain our lifestyles. These traditional management approaches have produced some impressive successes, particularly when focused on high-valued game species, e.g., deer, elk, and turkey. Unfortunately the number of threatened and endangered species continues to grow, as critical habitat is lost. The traditional single-species management approach may not be able to reverse this trend.

In the 1990s, a new management approach began to take hold, referred to as ecosystem management[1]. The traditional management approach was top-down, government-mandated, expert-driven, while the ecosystem approach emphasizes shared decision-making, cooperation rather than confrontation, and grass-roots, community-based involvement. Traditional management approaches tended to rely on artificial manipulations designed to emphasize a limited number of component parts of an ecosystem, which long term tend to degrade the functionality of the system reducing future benefits. The main premise of ecosystem management is that it seeks to maintain the continuance of whole functional ecosystems and the benefits derived therein. The ecosystem approach focuses on large natural systems rather than ecologically meaningless political boundaries. This new approach is a more reasonable way to conduct land and resource management and there is evidence that this new approach will work as more and more agencies and organizations make the switch to ecosystem management.

What is different about ecosystem management?[2] (1) Traditional management tended to focus on natural resource extraction (e.g., timber production, fishery and hunting resources, minerals, agriculture), while ecosystem management expands these interests to include amenities (e.g., camping, birding, clear skies, clean water, nature appreciation), ecological processes, and biodiversity. The ecosystem approach emphasizes that intact, functional ecosystems are necessary for the production of commodities and amenities.

[1] Also referred to as community-based conservation, adaptive management, or landscape-level conservation.

[2] Meff, G.K., L.A. Nielsen, R. Knight, and D.A. Schenborn. 2002. Ecosystem management: adaptive, community-based conservation. Island Press, Washington.

(2) The traditional approach followed the premise that ecological succession led to climax communities that would remain stable for long periods of time. Disturbances (e.g., fire, floods) were viewed as events that reset the clock, pushing succession back to earlier stages, something to be avoided through proper management (a balance of nature view). The ecosystem approach recognizes the fundamentally dynamic, nonequilibrium nature of the world and recognizes that natural disturbances are essential parts of resilient ecosystems (a flux of nature view).

(3) Traditional resource management tended to be more reductionistic and site-specific, solving immediate, local problems. Often it focused on individual species within a geographic area that could be readily managed. Ecosystem management tries to address multiple species and entire ecosystems.

(4) Traditional management tended to rely on prescriptions and tight control in its approach to natural resources. Ecosystem management comes with a huge degree of uncertainty and that human control of systems is not only difficult but also illusory. Flexibility and an adaptive management approach guide ecosystem management.

(5) Traditional management views problem solving and decision making as the province of the resource management agencies themselves disconnected form society at large. Ecosystem management emphasizes reaching solutions and making decisions through broad stakeholder involvement.

General Ecosystem Management Goal

> Natural resource management should strive to identify and retain critical types and ranges of natural variation in ecosystems, while satisfying the combined needs of the ecological, socioeconomic, and institutional systems.

To begin our approach to ecosystem management in South Dakota we divided the state into four management zones (Black Hills, West River, Missouri Breaks and East River) based on Level III ecoregions. "**Ecoregions** denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources; they are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components."[3]

[3] Principal Authors: Sandra A. Bryce, James M. Omernik, David E. Pater, Michael Ulmer, Jerome Schaar, Jerry Freeouf, Rex Johnson, Pat Kuck, and Sandra H. Azevedo

South Dakota Management Zones (Based on) → Level III Ecoregions

1. Black Hills

The Black Hills management zone is described by one Level III ecoregion with three Level IV ecoregions.

Middle Rockies (17)

17a. Black Hills Foothills
17b. Black Hills Plateau
17c. Black Hills Core Highlands

(17) The Middle Rockies ecoregion is characterized by individual mountain ranges of mixed geology interspersed with high elevation, grassy parkland. The Black Hills are an outlier of the Middle Rockies and share with them a montane climate, hydrography, and land use pattern. Ranching and woodland grazing, logging, recreation, and mining are common.

---

2. West River

The West River management zone is dominated by the Northwestern Great Plains ecoregion (with 10 Level IV ecoregions) and has small portions of three Level III ecoregions (West High Plains, Nebraska Sand Hills and Northwestern Glaciated Plains) in the southern portion of the West River management zone.

Northwestern Great Plains (43)

43a. Missouri Plateau
43c. River Breaks
43d. Forested Buttes
43e. Sagebrush Steppe
43f. Subhumid Pierre Shale Plains
43g. Semiarid Pierre Shale Plains
43h. White River Badlands
43i. Keya Paha Tablelands
43j. Moreau Prairie
43k. Dense Clay Prairie

(43) The **Northwestern Great Plains** ecoregion encompasses the Missouri Plateau section of the Great Plains. It is a semiarid rolling plain of shale, siltstone, and sandstone punctuated by occasional buttes and badlands. Native grasslands persist in areas of steep or broken topography, but they have been largely replaced by spring wheat and alfalfa over most of the ecoregion. Agriculture is limited by erratic precipitation patterns and limited opportunities for irrigation.

Western High Plains (25)

25a. Pine Ridge Escarpment

(25) The **Western High Plains** ecoregion is a landscape of rolling plains and tablelands formed by the erosion of the Rocky Mountains. Moisture is a limiting factor in the rainshadow of the Rocky Mountains; as a result, the plains vegetation is dominated by drought resistant shortgrass prairie. Farming in this region, once dependent upon rainfall, has been supplemented by irrigation water from the Ogallala Aquifer.

Nebraska Sand Hills (44)

44a. Nebraska Sand Hills

(44) The **Nebraska Sand Hills** ecoregion is the largest grass-stabilized dune region in the Western Hemisphere. This "sand sea" formed in the last 8,000 years, following the Pleistocene glaciations. The region is largely treeless and lacks tilled agriculture. Precipitation passes through the porous sands to continually recharge ground water, resulting in interdune areas of wetlands, lakes, and streams with a relatively constant annual discharge. The Sand Hills are an important recharge area for the Ogallala aquifer.

Northwestern Glaciated Plains (42)

42g. Ponca Plains

42h. Southern River Breaks

(42) The **Northwestern Glaciated Plains** ecoregion marks the westernmost extent of continental glaciation. The youthful morainal landscape has significant surface irregularity and high concentrations of wetlands. The rise in elevation along the eastern boundary defines the beginning of the Great Plains. Land use is transitional between the intensive dryland farming on Ecoregion 46i to the east and the predominance of cattle ranching and farming to the west on the Northwestern Great Plains (43).

---

3. Missouri River Breaks

includes parts of four ecoregions

43c. River Breaks
42h. Southern River Breaks
46n. James River Lowland
47d. Missouri Alluvial Plain

The Missouri River Breaks management zone includes parts of four Level III (and Level IV) ecoregions: Northwestern Great Plains, Northwestern Glaciated Plains, Northern Glaciated Plains, and Western Corn Belt Plains.

This management zone includes the high water mark on the impounded Missouri waters plus the broken terraces and uplands that descend to the Missouri River. This zone was created because of the uniqueness of Missouri River and the need to be able to provide a special focus on the Missouri River. The major South Dakota tributaries of the Missouri River will be covered in the appropriate West River (Grand, Moreau, Cheyenne, Bad, and White Rivers) and East River (James and Big Sioux Rivers) plans.

---

4. East River

The East River management zone is dominated by two Level III ecoregions–the Northern Glaciated Plains (8 Level IV ecoregions) in the eastern portion of the zone (referred to as the tall-grass sub-unit) and the Northwestern Glaciated Plains (4 Level IV ecoregions) in the western portion of the zone (referred to as the mixed-grass sub-unit). The East River zone also includes a small portion of the Western Corn Belt Plains ecoregion in the southeastern part of the zone and a very small portion of the Lake Agassiz Plains ecoregion in the northeastern tip of the East River zone.

Northern Glaciated Plains (46)

46c. Glacial Lake Basins
46d. Glacial Lake Deltas
46e. Tewaukon Dead Ice Moraine
46i. Drift Plains
46k. Prairie Coteau
46l. Prairie Coteau Escarpment
46m. Big Sioux Basin
46o. Minnesota River Prairie

(46) The **Northern Glaciated Plains** ecoregion is characterized by a flat to gently rolling landscape composed of glacial drift. The subhumid conditions foster a grassland transitional between the tall and shortgrass prairie. High concentrations of temporary and seasonal wetlands create favorable conditions for duck nesting and migration. Though the till soil is very fertile, agricultural success is subject to annual climatic fluctuations.

Northwestern Glaciated Plains (42)

42a. Missouri Coteau
42c. Missouri Coteau Slope
42e. Southern Missouri Coteau
42f. S. Missouri Coteau Slope

(42) The **Northwestern Glaciated Plains** ecoregion marks the westernmost extent of continental glaciation. The youthful morainal landscape has significant surface irregularity and high concentrations of wetlands. The rise in elevation along the eastern boundary defines the beginning of the Great Plains. Land use is transitional between the intensive dryland farming on Ecoregion 46i to the east and the predominance of cattle ranching and farming to the west on the Northwestern Great Plains (43).

Western Corn Belt Plains (47)

47a. Loess Plains
47d. Missouri Alluvial Plain

(47) The high agricultural productivity of the **Western Corn Belt Plains** ecoregion is due to its fertile soil, temperate climate, and adequate precipitation during the growing season. This ecoregion has a relatively homogeneous topography of level to gently rolling glacial till plains with areas of morainal hills and loess deposits. The original tallgrass prairie vegetation has been converted to intensive rowcrop agriculture of corn, soybeans, and feed grains to support livestock production.

Lake Agassiz Plains (48)
47a. Glacial Lake Agassiz Basin
47b. Sand Deltas & Beach Ridges

(48) Glacial Lake Agassiz was the last in a series of proglacial lakes to fill the Red River Valley since the beginning of the Pleistocene. The **Lake Agassiz Plain** is composed of thick lacustrine sediments underlain by glacial till. It is extremely flat and has fewer lakes and pothole wetlands than neighboring ecoregions. The historic tallgrass prairie has been replaced by intensive agriculture. The preferred crops in the northern half of the region are potatoes, beans and wheat; soybeans and corn predominate in the south. Sugar beets are grown throughout the region.

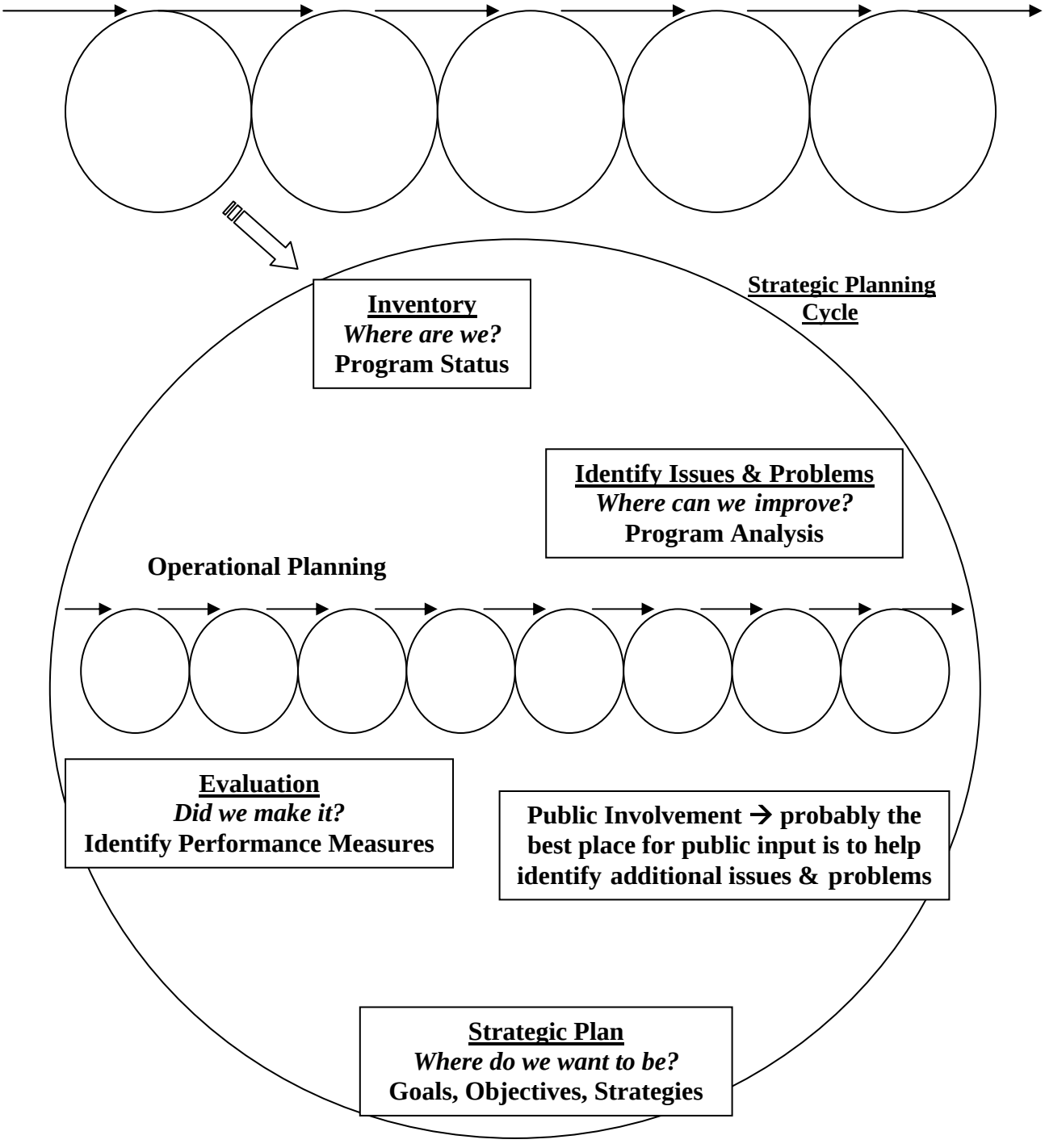
An objective of this planning process will be to develop a document that more completely describes South Dakota's ecosystems as a beginning step in applying an ecosystem management approach.

PLANNING PROCESS

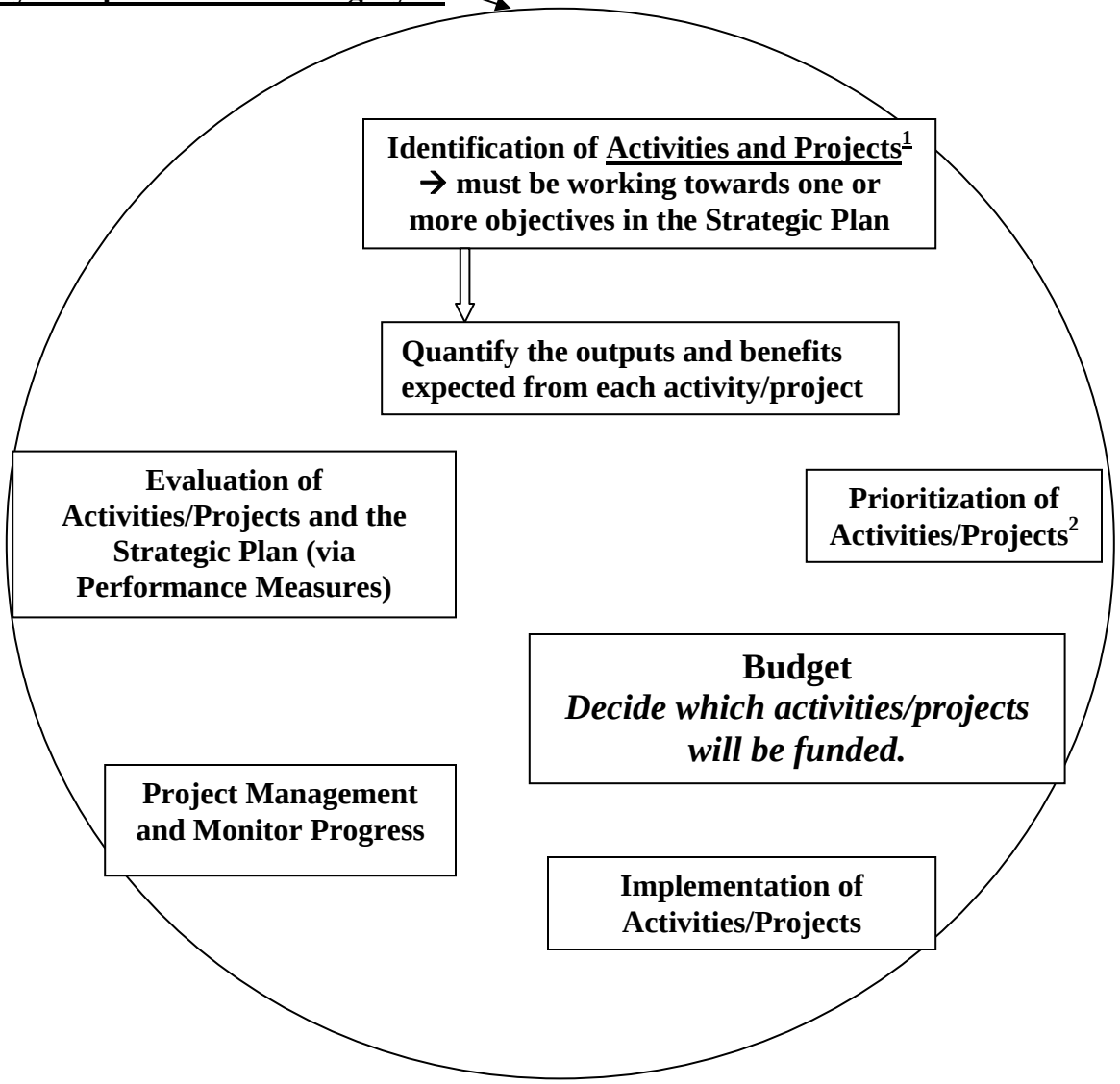
The planning process involves two major cyclic components: strategic planning and operational planning. Strategic planning is a long-term process (*see diagram on page 18*). Generally a strategic plan is revised every 5-10 years, however modifications and adjustments for continuos improvements can be made at anytime in the process. The planning process starts with an inventory, a description of program status followed by an analysis of issues, problems and opportunities facing the program. This is also a very opportune time to involve the public to both help identify additional issues, problems and opportunities and to help identify some strategic goals and objectives. The next step in the strategic planning process is to describe "where you want to be" via various goals, objectives and strategies, which is the essence of the strategic plan. The first part of the next step (evaluation) is to identify how you will measure performance, which completes the Strategic Plan.

Operational planning is a one-year planning cycle, which "gives life" to the Strategic Plan and ties the Strategic Plan to the budget (*see diagram on page 19*). The first step is to identify activities and projects designed to accomplish the various objectives listed in the Strategic Plan. The next step is to prioritize the list of activities and projects, which are used to help determine which activities/projects will be funded with the annual budget. Now the on-the-ground work begins (project management and monitoring). At the end of the cycle, activities/projects are evaluated. Were the expected outputs and benefits achieved? How about overall progress towards accomplishing strategic goals?

Strategic Planning *(long-term, process with continuous improvements & modifications)*



One-year Operational Planning Cycle



[1]Two Types of Operational Planning Systems:

1) Zero-Based Budget Approach
2) Base Maintenance and Operations plus Enhancement Projects

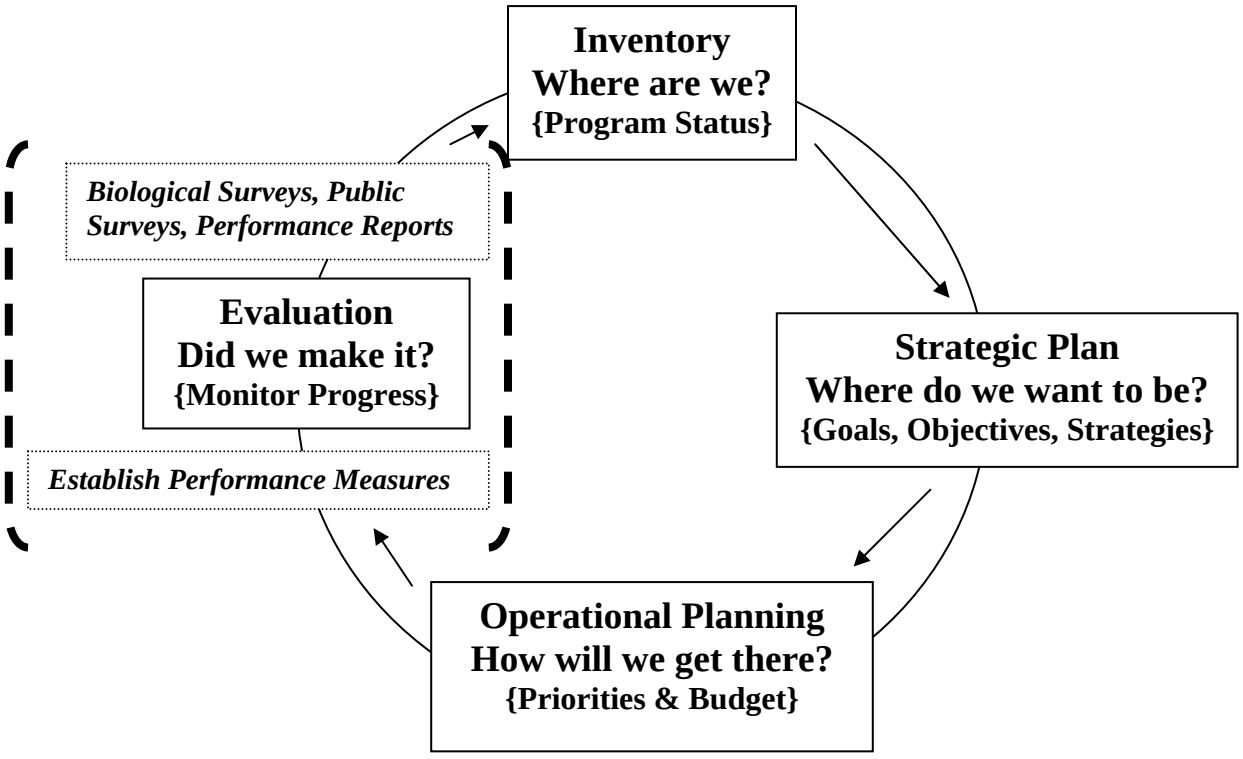
[2]Prioritization

1) Economic importance
2) Public interest
3) Ecological importance
4) Political significance
5) Existing data
6) Strategies
7) Objectives
8) Cost
9) Feasibility

PLANNING PROCESS – EVALUATION

The evaluation step in both strategic and operational planning is often poorly addressed or even skipped. Why – because it is difficult, time-consuming, usually expensive and often confrontational. However, it is an essential component of adaptive management. Evaluation is how we learn, adapt and improve. Another important reason for evaluation is **accountability**. A wildlife agency needs to be accountable to its citizens, legislators and commissioners for the money it spends and the services it provides.

Evaluation, in the diagram below, is depicted as the last step in a cyclic process, i.e., conducted at the end of a project or end of a strategic planning cycle. However, evaluation should occur throughout the strategic management process and at all scales of management (policy, program and activity/project).



"A **policy** is the highest level of decision making: policies create group-wide rules, guidelines, priorities, and culture. Evaluation at this level helps guide the decisions of those who set the group's mission, strategies, and goals."[4] A **program** is the main structural unit of a strategic plan (*see page 22*). Evaluation at this level helps to guide

[4] Meffe, G.K., L.A. Nielsen, R. Knight, and D.A. Schenborn. 2002. Ecosystem management: adaptive, community-based conservation. Island Press, Washington.

decision about goals, objectives and strategies. **Activities/projects** are the structural units of operational planning. Evaluation at this level measures progress, effectiveness, efficiency and accomplishments.

Evaluations have three main purposes and three corresponding types or approaches (Meffe, et al., 2002 – *see previous footnote*):

1. **Formative** evaluation helps planners decide whether or not to initiate a policy, program, or activity/project and, if so, what resources to allocate.
2. **Process** evaluation helps planners decide whether or not to modify a policy, program, or activity/project in terms of resource allocation or performance expectations.
3. **Summative** evaluation helps planners decide to continue or terminate a policy, program, or activity/project.

Evaluation for Ecosystem Management

The goal of ecosystem management is to maintain the full complement of biodiversity as well as ecosystem integrity while also integrating economic and social goals. A guide for evaluating ecosystem management can be found in the following citation:

> Haufler, J. B., R. K. Baydack, H. Campa, III, B. J. Kernohan, C. Miller, L. J. O'Neil, and L. Waita. 2002. Performance measures for ecosystem management and ecological sustainability. Wildlife Society Technical Review 01-1, 33 pp.

This guide identifies performance measures based on a reference to the historical range of variability at four levels: landscape, ecosystem, species, and genetic. Performance measures at the ecosystem level include ecosystem **composition**, **structure**, **functions**, and **processes**.

An ecosystem management approach was used in the **South Dakota Comprehensive Wildlife Conservation Plan** (Division of Wildlife Report 2006-08, May 2006), prepared by the Wildlife Diversity Program. A summary description of this plan is provided in the document: **South Dakota Wildlife Action Plan – The Big Picture**.

Adaptive Management System

Program Structure

For the purposes of this document a Program is defined as: "A logical grouping of goals and objectives that can be managed toward a common good (i.e., accomplish our mission). Agency programs are often defined by species, species groups, habitats, ecotype, support service, client or activity. Collectively, programs form a structure that defines an agency's product or service line." The following is the list of Division of Wildlife programs:

FISHERIES (consists of four subprograms)

- **STREAM FISHERIES:** Includes management of all cold and warm water streams (except the Missouri River) in South Dakota.
- **SMALL LAKES AND PONDS FISHERIES:** Includes management of all cold and warm water ponds, lakes and impoundments less than 150 surface areas.
- **LARGE LAKES AND RESERVOIRS FISHERIES:** Includes all lakes and reservoirs (other than Missouri River reservoirs) greater than 150 surface acres.
- **MISSOURI RIVER FISHERIES:** Includes all reservoirs, tailraces, boundary waters and unimpounded reaches of the Missouri River in South Dakota.

GAME (consists of four subprograms)

- **BIG GAME:** Includes white-tailed deer, mule deer, pronghorn, elk, wild turkey, bighorn sheep, mountain goat.
- **SMALL GAME:** Includes ring-necked pheasant, gray partridge, bobwhite quail, sharp-tailed grouse, greater prairie chicken, sage grouse, ruffed grouse, cottontail rabbits, and tree squirrels.
- **MIGRATORY GAME BIRDS:** Includes ducks, geese, tundra swans, sandhill cranes, doves, snipe, crows, and coot.
- **FURBEARER and OTHER GAME MAMMALS:** Includes bobcat, marten, muskrat, beaver, weasel, coyote, skunks, fox, raccoon, badger, opossum, jackrabbits, prairie dogs, ground squirrels, and other game mammals.

WILDLIFE DIVERSITY: Includes management and conservation of all South Dakota wildlife that are not legally classified as game or furbearer. Covers all state and federally listed threatened or endangered species as well as rare native plants, and critical habitats that may require special protection to ensure their future survival in the state.

WILDLIFE DAMAGE MANAGEMENT: Covers actions to limit crop, livestock, and property damage by predators, big game, waterfowl, and other nuisance wild animals.

HABITAT MANAGEMENT and ACQUISITION (consists of two subprograms)

- **PRIVATE LAND HABITAT and ACCESS:** Involves all wildlife habitat programs on private land. Various projects will include our Pheasants For Everyone contracts, private land wetland developments, Walk In Access program, expansion of the above and continued refinement to include a provision for longer term leases. All future private land habitat projects will be crafted to involve an increased emphasis on providing both better wildlife habitat and better public access.

- **PUBLIC LAND HABITAT and ACQUISITION:** Includes all existing Wildlife Division lands and lands managed and owned by other state and federal agencies. Other public lands will also include our COE mitigation project and other existing state and federal leases. Division land projects will involve special emphasis to adequately fund their optimum wildlife management potential. A land acquisition project will be developed based on a publicly supported, state-wide, long-term acquisition plan.

WILDLIFE ADVOCACY: Covers activities that influence and advocate public policies to benefit South Dakota's wildlife resources including environmental review and interagency coordination.

CONSERVATION LAW ENFORCEMENT: Covers all law enforcement activities pertaining to hunting, fishing, trapping, boating, and other laws for which the department has specific authority. Also, includes the TIPs program, law enforcement training, special permits and regulatory services, ethics and compliance education, and special operations/investigations.

COMMUNICATIONS (consists of four subprograms)

- **INFORMATION SERVICES:** Coordinates communication and informational effort and produces or coordinates media products and services for the division, e.g., hunting & fishing guides, Conservation Digest, radio/television spots.
- **EDUCATION SERVICES:** Coordinates project WILD, aquatic resource education, and other education activities pertaining to wildlife in South Dakota.
- **THE OUTDOOR CAMPUS:** Teaches environmental education and basic fundamentals of outdoor skills for a variety of activities in South Dakota through classes, seminars, programs, displays, exhibits and by providing other related I&E materials.
- **HUNTING/BOATING SAFETY:** Coordinates hunter safety and boating safety instruction.

ADMINISTRATIVE SERVICES: Covers grants administration, leadership, employee development, harvest surveys, human dimensions, public involvement and planning coordination.

Adaptive Management System

The Adaptive Management System (AMS) is a continuation of Division of Wildlife's initial strategic planning effort that began in 1990 with the Systematic Approach to Management (SAM). Much of that initial strategic planning effort is still relevant and utilized in this Adaptive Management System, with some important differences.

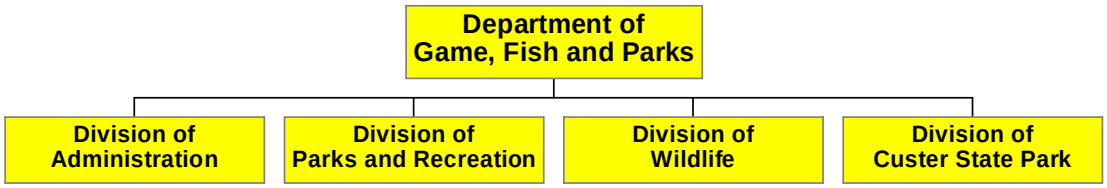
Management of fish and wildlife resources in a dynamic physical, social, political and fiscal environment requires a great deal of flexibility. The Adaptive Management System's guiding principle is **flexibility**. Unlike SAM, which tried to function as a single, coordinated event where all programs started their planning effort at the same time, had the same deadlines for completion and followed the same format, AMS will be a continuous, dynamic planning system with different schedules, deadlines and formats. Unlike SAM, which functioned within a rigid framework, AMS is designed to grow, evolve or adapt, as needed, in response to changes in the physical, social, political and fiscal environment.

Unlike the documentation for SAM, which was bound into a single document, the documentation for AMS can be visualized more as a loose-leaf notebook with sections constantly being added or revised. As such, AMS is never really completed. The vision is that strategic planning becomes a part of the normal, regular activities of all employees in the Division of Wildlife. As such, the vision is that AMS fits or adapts, as much as possible, to Division of Wildlife's current management system and schedule. For example, planning activities will be incorporated into regularly scheduled meetings when ever possible rather than scheduling special planning meetings.

Documentation of Division of Wildlife's AMS will consist of Division of Wildlife's Strategic Planning Framework (this document) plus a strategic plan for each of the four management zones. In addition, each program may identify other plans needed by that program to function. For example, the fisheries program may identify the need for a detailed Oahe Reservoir plan or the game program may identify the need to have a comprehensive turkey management plan. A review process will be developed for all program plans.

Division of Wildlife's planning coordinator will guide and coordinate AMS activities and progress. One annual meeting will be conducted during the spring to evaluate progress, discuss problems and strategies, and focus on events, etc. that will affect the current or upcoming budget. This meeting will function to incorporate such unplanned events into our management system by discussing how to re-prioritize our efforts to accommodate unplanned events or opportunities. The purpose of this meeting is to link the budgeting process with Division of Wildlife's strategic plan. This meeting would involve management staff and program leaders.

This or any other document in AMS can be revised at any time depending on circumstances and need. This document is **Version 06-2** (year-consecutive number) of the **South Dakota Division of Wildlife Strategic Plan**.



The Game, Fish and Parks Department theme for 2001

Please leave it better than you found it.

The Game, Fish and Parks Department theme for 2002

Get out more – Take time to explore

The Game, Fish and Parks Department theme for 2003

Teach youth to care, take time to share

The Game, Fish and Parks Department theme for 2004-06

Discover your own South Dakota 2004-2006