

## Wyoming's 2010 SWAP Conservation Approach

In 2001, the U.S. Congress created the State Wildlife Grant (SWG) Program and charged each state and territory with developing a Comprehensive Wildlife Conservation Strategy (CWCS) as a condition of receiving federal funds through the program. Wyoming completed its first CWCS in 2005.

CWCSs, now referred to as State Wildlife Action Plans (SWAPs), are intended to be broad-based strategies to maintain the health and diversity of wildlife within a state, including preventing the need for additional species to be listed under the Endangered Species Act. Special emphasis is given to addressing wildlife species that have received less conservation attention in the past, including those that are not hunted or fished. All 50 states have developed SWAPs, providing a comprehensive framework for planning and coordination on wildlife issues that cross state boundaries.

In the legislation defining SWAPs, Congress outlined eight requirements (Table 1). Beyond these requirements, Congress and the U.S. Fish and Wildlife Service (USFWS), the agency that reviews and approves SWAPs, provide substantial flexibility for each state to develop approaches that fit their unique wildlife, habitats, management context, and local issues.

**Table 1. Eight Required Elements for SWAPs**

1. Information on the distribution and abundance of species of wildlife, including low and declining populations as the state fish and wildlife agency deems appropriate, that are indicative of the diversity and health of the state's wildlife;
2. Descriptions of extent and condition of habitats and community types essential to the conservation of species identified in (1);
3. Descriptions of problems which may adversely affect species identified in (1) or their habitats, and priority research and

survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and habitats;

4. Descriptions of conservation actions proposed to conserve the identified species and habitats and priorities for implementing such actions;
5. Proposed plans for monitoring species identified in (1) and their habitats, for monitoring the effectiveness of the conservation actions proposed in (4), and for adapting these conservation actions to respond appropriately to new information or changing conditions;
6. Descriptions of procedures to review the plan at intervals not to exceed 10 years;
7. Plans for coordinating the development, implementation, review, and revision of the plan with federal, state, and local agencies and Indian tribes that manage significant land and water areas within the state or administer programs that significantly affect the conservation of identified species and habitats; and
8. Broad public participation is an essential element of developing and implementing these plans, the projects that are carried out while these plans are developed, and the species in greatest need of conservation.

While state wildlife agencies are responsible for developing and implementing SWAPs, many issues necessary for their success are beyond their jurisdiction and resources. Accordingly, SWAPs are required to be coordinated with other state, federal, and local natural resource organizations and agencies. The U.S. Forest Service, U.S. National Park Service, and the Bureau of Land Management have all signed an instructional memorandum for cooperation in developing and implementing SWAPs. In addition, many of Wyoming's most valuable wildlife habitats occur on private land, which

requires both developing conservation strategies that respect private property rights and nurturing strong functional partnerships with the private landowners in question.

Accomplishing the SWAP's purpose is no small task. Wyoming's waters and landscapes support over 800 species of wildlife (Wyoming Game and Fish Department 2005). Specifically, there are 120 species of mammals, 426 species of birds, 12 species of amphibians, 27 species of reptiles, 78 species of fish, arguably several thousand species of invertebrates, and well over 13,100 species of plants (Wyoming Game and Fish Department 2005, NRCS Plant Database).

Conserving Wyoming's wildlife species is heavily dependent upon the future quantity and quality of available habitat, both terrestrial and aquatic. The amount and condition of wildlife habitat is influenced by the success in developing strategies to address the issues which are having the greatest impact on wildlife and habitat resources. With this in mind and to most effectively focus conservation efforts and organize information within this plan, Wyoming's revised SWAP is organized by a three-tiered approach:

<b>Statewide</b>	Leading Wildlife Conservation Challenges
<b>Habitat</b>	Terrestrial Habitat Types and Aquatic Basins
<b>Species</b>	Species of Greatest Conservation Need

As the reader moves through the SWAP, the identified threats and conservation actions progress from general statewide issues and actions to habitat-specific issues and actions, and finally to conservation strategies for individual Species of Greatest Conservation Need (SGCN), which are presented within each species account.

Each level of conservation is addressed in a separate chapter which is further broken down into sections. Within each section, the eight required elements for SWAPs are addressed (Table 2). Exceptions are elements 6 and 8, dealing with public involvement and plans for

revising the SWAP, which are both addressed in separate chapters. Various sections are frequently cross-referenced throughout the SWAP to provide the reader with additional information on a given topic, but each section is also composed to function as a standalone document. This format was adopted because it is anticipated that Wyoming's SWAP will most frequently be accessed through the Internet for information on specific subjects, as opposed to being accessed as a single document in its entirety. Additionally, it is likely that individual sections of the SWAP will be duplicated and distributed.

The revision of Wyoming's SWAP extensively utilizes the expertise and feedback of wildlife and natural resources conservation experts. The broad scope of the SWAP and associated time and resource limitations made it impractical to conduct independent scientific analyses on each topic for this revision. Additionally, SWAPs are required to be developed using broad professional and public involvement and to discuss and address not only scientific issues, but also social, economic, and administrative considerations. Two committees assisted in the coordination of internal and external comment and feedback:

#### **The WGFD Habitat Technical Advisory Group**

The WGFD Habitat Technical Advisory Group (HTAG) facilitated the coordination of intra-agency expertise in the SWAP's revision, as well as linking SWAP efforts to existing department activities and priorities. In revising the SWAP, HTAG helped to develop the plan's outline, identify experts within the WGFD to contribute information, evaluate various conservation and prioritization strategies, review draft sections, and provide a forum for discussing revision-related issues and making recommendations to the WGFD's administration. HTAG also has a central role in the implementation of the plan through recommendations for the approval of SWG projects and other SWAP-related funds. A list of HTAG members can be found in Appendix A.

### **The SWAP Interagency Advisory Team**

The SWAP Interagency Advisory Team (IAT) was created to support the involvement of other wildlife and natural resource agencies in developing and implementing the SWAP. Their role includes communicating respective agency expertise and concerns, identifying common priorities and opportunities, minimizing the duplication of efforts, facilitating information-sharing, and conveying SWAP issues and activities to agency employees and constituencies. IAT contributed to the revision of the SWAP by providing input on the plan's outline, identifying leading issues and conservation actions, soliciting input from experts within their organizations, and reviewing draft documents. A list of IAT members can be found in Appendix B.

With the help of these two committees, input for the chapters on Leading Wildlife Conservation Challenges and Terrestrial Habitat Types was solicited from the personnel of agencies and organizations which have significant jurisdictional authority, financial resources, and/or technical expertise on each subject. Information was received either through focus groups or through individual written submissions to questions based on the subject headings of each section. This approach was considered to be both time-efficient for gathering information, as well as encouraging the involvement of entities whose participation is important for the implementation of the SWAP. Near the end of each section within these chapters is a list of individuals who reviewed the document and provided feedback on the subject matter. The input of contributors was compiled and then further supported by independent research. Existing conservation initiatives pertaining to Wyoming's wildlife and natural resources were consulted and referenced throughout the revision process. Most notable among these initiatives is the WGFD's Strategic Habitat Plan (2009).

Information for individual species accounts was provided by WGFD biologists most familiar with the species, and all accounts were reviewed by the WGFD Fisheries Management

Coordinator and the Supervisor of Biological Services. Species accounts were also made available to the Wyoming Natural Diversity Database for review. Scientific names for each SGCN can be found in the comprehensive list of these species within the SGCN chapter.

The SWAP should not be viewed as providing an exhaustive overview of each subject. Rather, it is intended to identify threats and conservation actions that are considered most important throughout the state, on which there is general consensus among experts consulted, and which have some degree of short-term or long-term attainability. The breadth of information in each section and the specificity of conservation actions vary, based upon existing knowledge, the availability of information, and the input provided by contributors. This reduced the consistency of identified threats and conservation recommendations between sections according to the priorities of the contributors. With this in mind, and with the knowledge that many listed conservation actions cross jurisdictional boundaries, the intent of many conservation recommendations is more to provide strategic guidance than to set specific courses of action. Agencies and organizations helping to implement the SWAP will need to select and adapt recommendations to fit their individual mandates and priorities. To this end, the WGFD is planning to develop an implementation strategy for the SWAP, including identifying performance indicators, beginning in the spring of 2011.

The content of this SWAP only reflects conditions and issues from one snapshot in time. It is the intent of the WGFD to formally revise its SWAP every five years with interim updates likely (see Reviewing and Updating the SWAP). Items and priorities addressed in this SWAP will change as new information becomes available, conditions change, and additional agencies, organizations, and individuals become engaged.

**Table 2. Road Map to Required SWAP Elements**

Required SWAP Element	Location in SWAP
<b>Element 1.</b> Information on the distribution and abundance of wildlife including SGCN.	<ul style="list-style-type: none"> <li>• Species accounts for each SGCN contain information on rangewide and statewide abundance, as well as Wyoming range and distribution maps. (Page IV- 1 - 1 to IV- 7 -35)</li> <li>• Terrestrial habitat types and aquatic basins have lists of associated SGCN and information on wildlife diversity. (Page III – 1 – 1 to III - 11 - 28)</li> </ul>
<b>Element 2.</b> Descriptions of extent and condition of habitats essential to SGCN.	<ul style="list-style-type: none"> <li>• SWAP habitat types and aquatic basins contain information about their distribution throughout Wyoming and physical and biological conditions. (Page III – 1 – 1 to III – 17 - 28)</li> <li>• Maps found within habitat types and aquatic basins show their locations within Wyoming. (Page III – 1 – 1 to III – 17 - 28)</li> <li>• SWAP SGCN priority area maps evaluate level of habitat intactness based upon 8 habitat disturbances. (Explanation and Map: Page III – i - 6 to III – i - 8)</li> <li>• Species accounts describe habitat requirements for each SGCN. (Page IV -1 - 1 to IV – 7 - 35)</li> </ul>
<b>Element 3.</b> Descriptions of problems that may adversely affect SGCN and their habitats.	<ul style="list-style-type: none"> <li>• The SWAP Leading Wildlife Conservation Challenges chapter addresses the five statewide threats that are most significant to SGCN and their habitats including climate change. (Page II 1 - 1 to II – 5 – 21)</li> <li>• Leading threats to each terrestrial habitat type and aquatic basin are listed within these sections. (Page III – 1 – 1 to III – 17 - 28)</li> <li>• Each species account lists threats to SGCN. (Page IV -1 - 1 to IV -7 -35)</li> <li>• Priority research and survey efforts are identified within the individual sections on leading wildlife conservation challenges, terrestrial habitat types, aquatic basins, and species accounts. (Page II 1-1 to II – 5 – 21, Page III – 1 – 1 to III – 17 - 28, Page IV -1-1 to IV -7-35)</li> </ul>
<b>Element 4.</b> Descriptions of conservation actions to conserve SGCN and their habitats.	<ul style="list-style-type: none"> <li>• Conservation actions needed to conserve SGCN and associated habitats and to address the most significant statewide wildlife conservation issues are found within individual species accounts,</li> </ul>

	<p>terrestrial habitat types, aquatic basins, and leading wildlife conservation challenges. (Page II 1 - 1 to II - 5 - 21, Page III - 1 - 1 to III - 17 - 28, Page IV -1 - 1 to IV - 7 - 35)</p>
<p><b>Element 5.</b> Proposed plans for monitoring SGCN, their habitats, and the success of conservation actions.</p>	<ul style="list-style-type: none"> <li>• Existing and needed monitoring is included within the Monitoring/Research and Conservation Actions sections found within species account. The introduction to the SGCN chapter has information on the WGF D plans to complete surveys on all SGCN. (Page IV -1-1 to IV -7 - 35, Page IV - i - 5)</li> <li>• Terrestrial habitat types and aquatic basins include monitoring recommendations. Existing monitoring is addressed within the Current Conservation Initiatives section. (Page III - 1 - 1 to Page III - 17 - 28)</li> <li>• Each of the five leading wildlife conservation challenges contains a section on recommended monitoring to track impacts and evaluate the success of conservation actions. (Page II 1- 1 to II - 5 - 21)</li> <li>• The chapter on Reviewing and Updating the SWAP has information on adapting conservation actions to respond to new information or changing conditions. (Page V - 1 - 1 to V - 1 - 3)</li> </ul>
<p><b>Element 6.</b> Descriptions of procedures to review the SWAP.</p>	<ul style="list-style-type: none"> <li>• These procedures are found in the Reviewing and Updating the SWAP chapter. (Page V - 1 - 1 to V - 1 - 3)</li> </ul>
<p><b>Element 7.</b> Plans for coordinating the development and implementation of the SWAP with other agencies.</p>	<ul style="list-style-type: none"> <li>• The role of the SWAP Interagency Advisory Team in developing and implementing the SWAP is described in the chapter on Conservation Approach. This chapter also explains how information was collected from various agencies, organizations, and experts in developing the SWAP. (Page I - 2 - 2 to I - 2 - 3)</li> <li>• A list of individuals from various agencies/organizations who contributed information or reviewed the SWAP is found at the end of each section within the Leading Wildlife Conservation Challenges and Habitat chapters. (Page II 1-1 to II - 5 - 21, Page III - 1 - 1 to III - 17 - 28)</li> <li>• The revised SWAP external review process is described within the chapter on Public</li> </ul>

	Participation. . (Page VI – 1 – 1 to VI – 1 – 4)
<b>Element 8.</b> Public participation.	<ul style="list-style-type: none"><li>• Public Participation chapter. (Page VI – 1 – 1 to VI – 1 – 4)</li></ul>

## Literature Cited

- NRCS PLANT DATABASE. USDA, Natural Resource Conservation Service website:  
<http://plants.usda.gov>.
- WYOMING GAME AND FISH DEPARTMENT. 2005. The official state list of common and scientific names of birds, mammals, amphibians, and reptiles in Wyoming. Wyoming Game and Fish Department. Cheyenne, WY.  
<http://gf.state.wy.us/services/education/speciesindex.asp>.
- WYOMING GAME AND FISH DEPARTMENT. 2009. Strategic habitat plan. Wyoming Game and Fish Department. Cheyenne, WY.

## Appendix A

### WGFD Habitat Technical Advisory Group (HTAG) Members

#### Gary Butler

Terrestrial Habitat Program Manager

#### Bill Cowling

Habitat and Access Branch Chief

#### Paul Dey

Aquatic Habitat Manager

#### Mary Flanderka

Habitat Protection Coordinator

#### Mark Konishi

Information and Publication Supervisor

#### Bob Lanka

Supervisor of Biological Services (current)

#### Dirk Miller (Chair)

Fisheries Management Coordinator

#### Kerry Olson

Lands Resources Biologist

#### Glenn Pauley

State Wildlife Action Plan Coordinator

#### Reg Rothwell

Supervisor of Biological Services (former)

#### Meredith Wood

Federal Assistance Coordinator

## Appendix B

### SWAP Interagency Advisory Team (IAT) Members

#### Gary Beauvais

Director, Wyoming Natural Diversity Database

#### Susan Childs

Deputy Director, Wyoming Office of State Lands and Investments

#### Pat Deibert

Branch Chief of Listing and Conservation Partnerships, U.S. Fish and Wildlife Service

#### John Keck

Montana and Wyoming State Coordinator-Assistant Superintendent, National Park Service

#### Alan Williamson

Wildlife Program Manager, Medicine Bow National Forest and Thunder Basin National Grassland, U.S. Forest Service

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#### William Munro

Laramie Ranger District Biologist, Medicine Bow – Routt National Forests and Thunder Basin National Grassland, U.S. Forest Service

#### Paul Obert

State Wildlife Biologist, Natural Resources Conservation Service

#### Glenn Pauley

State Wildlife Action Plan Coordinator, Wyoming Game and Fish Department

#### Dennis Saville

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#### Temple Stevenson

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#### Justin Williams

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