

# Revision and Monitoring of the Strategy

## *Monitoring*

The scope of the Montana's strategy is tremendous, and most likely exceeds the current resources that would be necessary to fully implement all the conservation strategies identified for each conservation priority identified within the four components. As a result, there is an increased need to monitor the effectiveness of the strategy. Monitoring will be critical to increase our confidence in future management decisions, improve the effectiveness of the strategies that are implemented and to generally improve our knowledge about ecological relationships between species, habitat and community scale conservation so that future versions of this strategy are improved and species and their habitats more efficiently conserved.

Our goal is to determine the overall effectiveness of the strategy by monitoring all conservation efforts, determining if they are succeeding or failing, measuring the progress being made toward projected outcomes and then using all of this information to adapt and improve the strategy throughout time. In order to achieve this goal we will 1) determine if conservation strategies were implemented, 2) determine if the strategies that were implemented resulted in the anticipated outcomes, and 3) determine if the size of the species population or amount of habitat has increased or if condition have improved as a result of the strategies. All of this information will be incorporated into subsequent management decisions related to the implementation and revision of the strategy.

## *Revision*

Strategies range from broad- to fine-scale, and the time needed to detect the success as a result of implementation may vary from years to decades. As such, we will monitor the overall conservation success for each of the four components at different intervals and incorporate this information into our decisions as soon as possible. Although components will be monitored separately, the overall strategy will be revised every six years.

## **Monitoring and Revision of Focus Area Conservation**

Monitoring the success of strategies implemented within focus areas will be achieved by 1) identifying if strategies were not implemented, partially implemented, fully implemented, or are ongoing indefinite implementation, 2) incorporating appropriate monitoring concepts into project design at the operational level to ensure that the anticipated outcomes are achieved, and 3) by coordinating ongoing monitoring efforts by agencies and organizations to evaluate the trends of the species and habitats within the focus areas and determine if they are increasing or improving.

Note: In the future, adequate land cover layers need to be developed so that spatial analysis methods for monitoring the health and status of the focus areas can be improved and refined.

Because selection of the priority focus areas is based on the extent of the presence of fish and wildlife communities in greatest need, monitoring the overall effectiveness of strategies at conserving focus areas will require looking at strategies being implemented for all of the communities and species.

Fish, Wildlife & Parks staff will coordinate the revision of this component every six years in collaboration with its partners and through public review.

### **Monitoring and Revision of Community Types Conservation**

Monitoring the success of strategies implemented for community types will be achieved by 1) identifying if strategies were not implemented, partially implemented, fully implemented, or are ongoing indefinite implementation, 2) incorporating appropriate monitoring concepts into project design at the operational level to ensure that the anticipated outcomes are achieved, and 3) by coordinating ongoing monitoring efforts by agencies and organization to evaluate the trends of the species and habitats that make up the essential community associations to determine if their condition is improving.

Fish and wildlife communities have not been fully defined in Montana. Although much of the information contained in this Strategy is not new, the strategy planning process provided an opportunity to begin developing general and essential associations for all fish and wildlife species with their habitats by building on many years of research and work. We linked fish and wildlife with plants and geographic characteristics to attempt to create community types. In order to best monitor the effectiveness of conservation strategies aimed at community types, much research is needed to fully develop and validate true fish and wildlife communities in Montana. Success at conserving these communities could then be measured by using methods such as monitoring an index of overall community condition.

Fish, Wildlife & Parks staff will coordinate the revision of this component every six years in collaboration with its partners and through public review.

### **Monitoring and Revision of Species Conservation**

Monitoring the success of strategies implemented for species will be achieved by 1) identifying if strategies were not implemented, partially implemented, fully implemented, or are ongoing indefinite implementation, 2) incorporating appropriate monitoring concepts into project design at the operational level to ensure that the anticipated outcomes are achieved, and 3) by coordinating

ongoing agency and organization monitoring efforts to evaluate the trends of the species to determine if their populations are increasing.

The primary method for monitoring the overall effectiveness of conservation strategies implemented for species will be performed using the Montana Animal Species of Concern List (SOC), cooperatively maintained by FWP and MNHP, will be used to monitor species populations. Each year the MNHP senior zoologist and the chief of the FWP Information Management Unit conduct a review of the Montana Animal Species of Concern List using a protocol developed by NatureServe and modified for Montana. The review combines the quantitative documentation approach from NatureServe with the professional knowledge of staff from numerous agencies and organizations to determine species status. Subsequent to the annual review, the FWP Information Management Unit will use information from the updated Species of Concern List to recalculate the assignment of level of conservation need to all Montana fish and wildlife species as described in the species methods section of this Strategy. Changes in tier assignments will serve as one indicator to help gauge if species are being successfully conserved in Montana. Overall, the movement of any species from a higher tier to a lower tier (e.g., Tier I to Tier II) or off the list entirely could indicate improvement. Movement of species from a lower tier to a higher tier could indicate further decline.

Fish, Wildlife & Parks staff will coordinate the revision of this component every six years in collaboration with its partners and through public review.

### **Monitoring and Revision of the Inventory Component**

Monitoring the success of implementing the inventory component of the strategy will be achieved by 1) identifying if no, partial or full inventory was conducted, and 2) incorporating appropriate monitoring concepts into inventory design at the operational level to ensure that the anticipated outcomes are achieved.

The primary method for monitoring the overall effectiveness of conducting inventories for species identified in the strategy will be achieved using the FWP/MNHP Point Observation Database (POD). The database is the statewide clearinghouse for fish and wildlife species data for inventories conducted by many agencies and organizations such as FWP, MNHP, the U.S. Forest Service, The Nature Conservancy, and the Audubon Society. The POD will be queried to determine if gaps in occurrence data for species and species groups identified in the Strategy as in greatest need of inventory have been met.

Fish, Wildlife & Parks staff will coordinate the revision of this component every six years in collaboration with its partners and through public review.