



Denali's Resource Stewardship Strategy: Achieving desired conditions for park resources



Denali's Resource Stewardship Strategy will guide how the park manages its resources, including Dall sheep, to ensure the park maintains the desired condition of these resources.

When Charles Sheldon's envisioned a national park to protect the Dall's Sheep and other wildlife and their habitat near the tallest mountain in North America in the years prior to 1917, he couldn't have known what challenges would face the expanded Denali National Park and Preserve 90 years later.

In 2003, Denali included as a park focus area the development of a strategic science plan. That same year, the Murie Science and Learning Center was established and Denali's interpretation and resources divisions were integrated into the Center for Resources, Science, and Learning. The timing was right to develop an RSS for Denali.

In late autumn 2007, Denali completed a Resource Stewardship Strategy (RSS) to provides strategic guidance for the research, resource management, and resource education programs of the National Park Service (NPS) at Denali over the next 20 years.

What is a Resource Stewardship Strategy?

The RSS is a bridge between the desired conditions in a park's General Management Plan (GMP) and the goals and implementation actions determined through park planning. In the RSS process, parks identify indicators of resource condition, establish targets for each indicator, and assess the current condition of these indicators. "Comprehensive Strategies" are then developed to fill any gaps in resource knowledge, to determine indicators and targets if unknown, to determine resource condition, and to plan studies or research that help the park achieve or maintain desired conditions.

The Resource Stewardship Strategy serves as a bridge between the qualitative statements of desired conditions established in a park's General Management Plan (GMP) and the measureable goals and implementation actions determined through park strategic planning.

Denali is the second unit in the National Park system—and the first park with extensive natural resources—to complete an RSS. Thus, Denali's RSS document may serve as a prototype for other large parks managing extensive natural and cultural resources.

Denali has long recognized the importance of information-based decision making as well as the need to increase the public's understanding of park issues through a science- and scholarship-based approach. Denali has operated using its Resource Management Plan (1998), but in 2001, the NPS instituted a new planning process through its Management Policies, which changed the principal program document for resource management from the Resource Management Plan to the Resource Stewardship Strategy (Director's Order 2-1).

The scope of an RSS is limited to the desired conditions of resources (both natural and cultural) and the desired conditions for visitor experience that directly depend upon resources conditions. The RSS provides the park with a strategy for investing both human and fiscal resources in the stewardship of natural and cultural resources. It also reports accountability toward progress in attaining and maintaining desired resource conditions at the park.

Denali's Fundamental Resources and Values

(1) wildlife populations, wildlife habitat, and the processes and components of the park's natural ecosystems,



(2) wilderness character, wilderness resource values, and wilderness recreational opportunities,



(3) scenic and geologic values of Mount McKinley and surrounding mountain landscape,

(4) visitor enjoyment and inspiration from observing wildlife in its natural habitat and other natural features,



Denali's Other Resources and Values

(5) historic, archaeological, and ethnographic resources



(6) subsistence resources and opportunities,

(7) paleontological resources,



(8) air quality, and

(9) scientific research, education, and interpretation about natural ecosystems and geological features and processes.



Development of Denali's RSS

The RSS process is a work-in-progress. Denali's RSS team followed the Midwest Region's guidance to Herbert Hoover NHS (where the first RSS was developed), but adopted new approaches to address Denali's extensive natural resources.

Phase 1: List Denali's resources and values and determine the status of resource knowledge

In fall 2006, Denali staff reviewed documents (enabling legislation for the "old park," Alaska National Interest Lands Conservation Act or ANILCA (1980), and Denali's GMP (2006)) to list Denali's *resources and values* (see panel at left). Fundamental resources and values reflect the park's purposes and significance. Other important resources and values are ones the park is mandated by Congress to protect, but are not the reason the park was established. The desired condition for each value was derived from the documents reviewed.

Denali staff reviewed the *status of knowledge* in relation to desired condition for physical, biological, and cultural resources, as well as park visitation and the human environment in and around the park. This information was assessed to identify data gaps.

Phase 2: Develop indicators and targets

Indicators and *targets* were selected to determine if the park is maintaining or achieving the desired conditions for park resources and values. To brainstorm ideas for indicators and targets, Denali invited subject experts to a half-day workshop in September 2006 and held meetings with resource professionals and park stakeholders in early 2007.

Denali's RSS team selected 119 indicators. Targets were able to be set for 80 indicators and current condition is known for 46 indicators. Research and planning are needed to identify the targets and current condition for the remaining indicators and to identify some indicators related to visitor experience.

Phase 3: Create comprehensive strategies

Denali's RSS team developed 19 *comprehensive strategies* and 99 associated projects that address one of three needs: (1) monitoring and managing park resources and visitor activities to assure that targets for each indicator are achieved, (2) filling data gaps necessary to define and evaluate indicators and targets for park resources, and (3) implementation of research or resource management activity required by legislation or the park's GMP. Each strategy and project are arranged on a timeline (sequence not specific years) with a budget. Projects were prioritized into high, medium, and low bands. The comprehensive strategies were peer-reviewed.

Phase 4: Complete and implement RSS

Funded projects will proceed through planning and NEPA compliance. At 5-year intervals, park staff will review and adjust the RSS. Existing specific park program plans such as the Subsistence Management Plan, Museum Management Plan, and the Bear-Human Conflict Management Plan will continue to provide the details for day-to-day operations.

Denali's Comprehensive Strategies

Base Knowledge of Park Resources

Strategy A: Complete biological, physical, and cultural resource inventories for Denali

Strategy B: Develop an understanding of basic ecological relationships necessary for management decisions

Strategy C: Develop the historic contexts necessary to evaluate nominations for National Register significance

Monitoring Resources

Strategy D: Develop and/or implement vital signs monitoring protocols for physical and biological resources

Strategy E: Monitor natural resources that may need management response

Management and Mitigation

Strategy F: Develop and implement plans to monitor and manage vulnerable park resources

Strategy G: Restore and monitor disturbed lands

Strategy H: Determine and monitor visitor carrying capacity by management area

Strategy I: Minimize habituation of park wildlife

Strategy J: Detect, monitor, and mitigate environmental influences external to the local natural ecosystem

Strategy K: Mitigate the risk of wildland fire to park infrastructure and cultural resource sites

Strategy L: Preserve the museum collection and rehabilitate and preserve park historic structures

Strategy M: Monitor and manage consumptive uses of park resources, including subsistence use

Strategy N: Enhance and increase the effectiveness of wildlife protection by deterring illegal activities

Parks and People

Strategy O: Improve estimation of park visitation

Strategy P: Monitor trends in adjacent community populations, land use, and local economy

Data Management

Strategy Q: Develop and implement effective data management strategies

Education and Communication

Strategy R: Facilitate the education of all audiences (external and internal) about resource issues

Strategy S: Develop staffing and infrastructure to enhance bridges between research and interpretation

For more information

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