

Wilderness

Goal: Manage all designated wilderness to maintain the enduring resource of wilderness as directed by the Wilderness Act of 1964, subject to the special provisions and exceptions in the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) and the Tongass Timber Reform Act of 1990 (TTRA)

Objectives: Apply a multi-disciplinary focus to wilderness management; consider stewardship of wilderness in the annual program of work by all resources.

Background: The Tongass National Forest contains almost 5.8 million acres within 19 congressionally designated wilderness areas. Each wilderness area is managed as a separate system as the character and resources for each wilderness are unique.

The Wilderness Act of 1964 specifies that the agency has a responsibility to protect the wilderness resources and wilderness character. Efforts have been made over the last eight years by the District Rangers, who are responsible for the management of these resources, to identify the character for each wilderness and how to protect these components. Much of this effort has been facilitated through Washington Office direction, called the Wilderness Stewardship Challenge, which is intended to have a wilderness identified as being maintained to a minimum stewardship level by the 50th Anniversary of the Wilderness Act. At the end of 2012, the Tongass reported 18 of the 19 wilderness areas meeting a minimum stewardship level. The long term maintenance of the wilderness character is one of the 10 elements measured for wilderness stewardship.

Tongass National Forest wilderness is managed under both the Wilderness Act of 1964 and the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). The Wilderness Act mandates that each agency administering designated wilderness shall be responsible for preserving the wilderness character of the area.¹ Wilderness management policy identifies the baseline time frame for preserving wilderness character as the time of wilderness designation.

ANILCA Section 707 states, “except as otherwise expressly provided for in ANILCA wilderness shall be administered in accordance with applicable provisions of the Wilderness Act....” ANILCA provides specific exceptions to some of the prohibitions of the Wilderness Act to accommodate subsistence lifestyles and unique situations in Alaska. The challenge for managers of ANILCA wilderness is to preserve wilderness character as it was at time of designation while also managing for uses allowed under ANILCA. Monitoring for changes in wilderness character is critical to determine if wilderness character is being preserved with this complex management situation.

Wilderness Question: Is the wilderness character being maintained?

In September 2012, the Tongass Forest Supervisor signed the *Wilderness Character Monitoring Plan for the Tongass National Forest*. This plan provides direction for monitoring and evaluating changes in wilderness character for the 19 wilderness areas on the Tongass National Forest. The plan also identifies a pathway for action to prevent or halt degradation of wilderness resources and qualities. To monitor

¹ The Wilderness Act, Statement of Policy, Section 2(a), states that wilderness areas “shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment of wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character.” Section 4 (b) of the Act, Use of Wilderness Areas, states that “...each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area....”

wilderness character, managers will identify trends in the four qualities of wilderness character: untrammeled, natural, undeveloped, and solitude or primitive/unconfined recreation.

Understanding the maintenance of the wilderness character will require measurements, both annually and every five years, to identify changes or trends. This work will also require interdisciplinary participation for the inventory and monitoring specific the specific components that collectively make up the wilderness character for the separate wildernesses. Since the standards were just established in 2012, the answer to whether or not the wilderness character is being maintained for each of the 19 wilderness areas may not be known until after 2017.

Evaluation Criteria

The four qualities of wilderness character are: Untrammeled, Undeveloped, Natural, and Outstanding Opportunities for solitude or a primitive and unconfined type of recreation. These are derived from the definition of Wilderness in the Wilderness Act, Section 2(c). *Keeping it Wild* (Landres and others 2008) describes in detail the use of these four qualities in wilderness character monitoring. A fifth quality is being considered as a potential addition to these qualities. This fifth quality would focus on unique/other features - such as cultural, ecological, geological, or other features of scientific, educational, scenic, or historical value.

Following is a description of the qualities of the wilderness character and indicators that will be measured over the next five years (from the Tongass Wilderness Character Monitoring Plan). The “Objective” and “Question” for each quality provide focus on the desired state of the wilderness and the purpose of the monitoring. The “Indicators” are from the national framework. They were selected for their relevance, reliability, and cost-effectiveness.

The monitoring measures identified in this plan are “core measures” applicable to all wilderness areas on the Tongass National Forest. District Rangers have discretion to add other measures important for tracking changes in individual Wilderness areas.

Table 1. Qualities of Wilderness Character

<p>NATURAL</p> <p>Wilderness "...is protected and managed so as to preserve its natural conditions."</p> <p>Wilderness ecological systems are substantially free from the effects of modern civilization.</p> <p>Indicators are:</p> <ul style="list-style-type: none"> Plant and animal species and communities Physical resources Biophysical processes <p>Measures could include:</p> <ul style="list-style-type: none"> A bundance/distribution for species of concern Non-native species Grazing allotments Visibility, ozone, chemical deposition Departure from natural fire regimes Loss of connectivity Measures related to climate change 	<p>UNTRAMMELED</p> <p>Wilderness is "...an area where the earth and its community of life are untrammeled by man..." and "...generally appears to have been affected primarily by the forces of nature."</p> <p>Wilderness is essentially unhindered and free from the actions of modern human control or manipulation.</p> <p>Indicators are:</p> <ul style="list-style-type: none"> Actions authorized by the Federal land manager that manipulate the biophysical environment Actions <u>not</u> authorized by the Federal manager that manipulate the biophysical environment <p>Measures could include:</p> <ul style="list-style-type: none"> Spraying weeds Suppressing or lighting fire Introducing non-native species Unauthorized actions such as predator control
<p>UNDEVELOPED</p> <p>Wilderness is "...an area of undeveloped Federal land...without permanent improvement or human habitation" and "...where man himself is a visitor who does not remain."</p> <p>Wilderness retains its primeval character and influence, and is essentially without permanent improvement or modern human occupation.</p> <p>Indicators are:</p> <ul style="list-style-type: none"> Non-recreational structures, installations, developments Inholdings Use of motor vehicles, motorized equipment, or mechanical transport <p>Measures could include:</p> <ul style="list-style-type: none"> Authorized installations and developments such as scientific equipment, radio repeaters, fish barriers Unauthorized installations and developments Inholdings Administrative and emergency uses of motor vehicles, motorized equipment, or mechanical transport Unauthorized uses of motor vehicles, motorized equipment, or mechanical transport 	<p>SOLITUDE OR PRIMITIVE AND UNCONFINED RECREATION</p> <p>Wilderness "...has outstanding opportunities for solitude or a primitive and unconfined type of recreation."</p> <p>Wilderness provides outstanding opportunities for solitude or primitive and unconfined recreation.</p> <p>Indicators are:</p> <ul style="list-style-type: none"> Remoteness from sights and sounds of people inside the wilderness Remoteness from occupied and modified areas outside the wilderness Facilities that decrease self-reliant recreation Management restrictions on visitor behavior <p>Measures could include:</p> <ul style="list-style-type: none"> Visitor use Area affected by travel routes Night sky visibility Impacts to soundscape Authorized recreation facilities such as trails, toilets, bridges, shelters Unauthorized recreation facilities such as user-created campsites, illegal motorcycle/ATV trails Visitor management restrictions

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For each of the four qualities of wilderness character there are indicators, measures, monitoring frequency, data source, responsibility and protocol. (Appendix A-G of the Tongass Wilderness Character Monitoring Plan) Some of the measures have “monitoring flags” that serve as a potential indicator of degrading trends. Additional monitoring flags may be developed as experience is gained with the monitoring. Monitoring flags may be replaced by “standards”- established levels of acceptable change- as these are developed with the Forest Plan or other planning decisions.

Sampling/Reporting Period:

Sampling Period: annual, reporting and Evaluation Period: 5 years.

Much of the sampling is done annually as required by the Washington Office to report whether or not a wilderness is being maintained at a minimum stewardship level. Some sampling will be captured to reflect trends over a five year period. Figure 3 of the Wilderness Character Monitoring Framework identifies specific measurements, frequencies, and responsibilities for the framework reporting.

Monitoring Results

The Tongass Wilderness Character Monitoring plan was signed by the Forest Supervisor in September 2012. While components of the monitoring have been identified, the sampling methods will be refined and tested in 2013. Until trends are identified through additional monitoring, there can be no conclusions regarding the success for the maintenance of the wilderness character on the Tongass.

Progress in 2012 in establishing the baseline needed to respond to the ongoing wilderness character monitoring question was facilitated by a grant of \$251,000 provided by the Washington Office and through the increased participation of regional non-profit organizations interested in wilderness stewardship. These grants supported work on Wilderness Character Monitoring, invasive plant treatment in the Stikine-LeConte Wilderness, updates to Wilderness Education Plans, monitoring of outfitter/guides use, completion of wilderness Information Needs Assessments, completion of wilderness Information Needs Assessment Inventories for Sitka RD, and completion of invasive plant inventories. The work completed with these grants improved the work in wilderness stewardship across the Tongass.

Specific improvements in wilderness stewardship elements included work in elements 5, 7, 8, and 9. Many specific accomplishments resulted from partnerships between the Tongass National Forest and the Sitka Conservation Society and Southeast Alaska Conservation Society, allowing for cooperation on stewardship projects.

Element 5 Solitude and Primitive Recreation Monitoring – The Tongass completed a forest-wide protocol for monitoring areas of outstanding opportunities for solitude. The plan outlines a strategy to identify and preserve areas in Tongass wilderness that provide the most outstanding opportunities for solitude and are considered at risk of losing those opportunities. A goal is to focus the limited resources available to monitoring to observe trends for these outstanding opportunity areas at risk. Another goal is to set up a pathway for action when it is needed to preserve these outstanding areas. Through these efforts, 11 of 19 wilderness areas improved their management goals in 2012.

Element 7 – Outfitter and Guide Operations – A Washington Office grant provided extra funds to improve the management and oversight of outfitter and guide operations in six wilderness areas. At this time, all 19 wilderness areas are reporting that outfitter and guide operations have language in their annual operating plans that identify their responsibility to preserve and protect the wilderness resource.

Element 8 – Adequate Standards to Prevent Degradation As mentioned, the Tongass completed a monitoring plan for maintaining wilderness character. Elements of this plan will continue to be refined as

the forest aspects of the plan are tested for their effectiveness. Work on this plan allowed 10 of 19 wilderness areas improve their management scores.

Element 9 – Wilderness Information Needs – To evaluate changes to resources over time requires a baseline inventory for each wilderness; 18 of 19 wilderness areas now have an information needs assessment in place. Work in 2012 on completing information needs plans and basic inventories improved our understanding of the wilderness resources in six wilderness areas.

Sitka Conservation Society (SCS) and Southeast Alaska Conservation Council (SEACC) provided additional assistance to stewardship work within wilderness. Work completed by SCS included helping to develop simple, easy-to-use data collection booklets for visitor use observation and encounter documentation. These were provided to all district employees for data recording throughout the 2012 season. This work resulted in more eyes on the ground and more areas of the district monitored, including areas within the South Baranof and West Chichagof-Yakobi Wilderness areas. SCS assisted in the revision of a monitoring form for wilderness encounters, and they hired a person to record visitor use observations in priority wilderness locations for 28 days. SCS conducted monitoring base camps, week long trips in one area during periods of peak use/conflict. This effort resulted in seven trips conducted in wilderness by district wilderness ranger, Artists-in-Residence volunteers, SCS volunteers, and the SCS intern. SCS participated in baseline wilderness inventories identified in the Wilderness Information Needs Assessments (INA), for which funding was focused on three priority areas in the south Baranof and West Chichgaof-Yakobi Wilderness Areas: impacts on cultural/heritage sites from recreation use, opportunities for solitude and primitive/unconfined recreation, and mountain goat (an introduced species) impact on vegetation. Work accomplished for the INA included baseline inventories of botanical, cultural/heritage, and solitude/primitive recreation resources in several priority sites. This work was conducted by district archaeologist, district botanist, and district wilderness staff as well as trained volunteers and interns from SCS and the Voices in the Wilderness Artist-in-Residence program. This effort resulted in the inventory of twelve key areas.

Additionally, SCS partnered with The Boat Company (a permitted guide on the Tongass) to hire an intern to conduct wilderness stewardship activities and visitor use monitoring throughout the Sitka District. The internship provided the opportunity for a recent graduate in natural resources management to gain relevant work experience with the Forest Service for fourteen weeks to expand outfitter/guide monitoring efforts in key areas. This effort took place over 37 days of monitoring conducted by the intern and with field partners and included participation in inspections, site impact monitoring, client and guide contacts, and project specific surveys. In partnership with SCS, intern monitoring included conduction of campsite surveys, recording of encounters in wilderness, assistance with invasive plant surveys, promotion of Leave No Trace and wilderness awareness with National Forest visitors (guides and clients) in the South Baranof and West Chichagof- Yakobi Wilderness areas. A total of five trips were conducted in the wilderness with intern participation. The intern also developed outreach media products (blog, news article

The Wrangell Ranger District (WRD) worked jointly with SCS and SEACC to organize the Wrangell Boy Scouts to work in the Stikine-LeConte Wilderness to eradicate an area of invasive plants. Another cooperative effort resulted in a multi-day backpack hike in the South Etolin Wilderness to Mt. Shakes on South Etolin Island to monitor solitude, sensitive plants, invasive plants, amphibians, heritage resources, impacts from elk (introduced species), and campsites used by permitted commercial operators. Noteworthy is the discovery of a sensitive orchid plant species at multiple sites. No invasive plants were found. The crew also removed the remains of a camp abandoned as trash in the wilderness.

Evaluation of Results

Some results for components of the wilderness character are being reported separately by resource (for example, air quality and invasive plants). There has not been enough information collected to determine whether or not the wilderness character of each wilderness is being maintained.

Action Plan

The Action Plan for maintaining the wilderness character is highlighted in specific resource monitoring strategies attached to the Tongass Wilderness Character Monitoring Plan; Attachments A-G. Protocols have been developed, or are being formulated to address invasive plants, lichen biomonitoring, wilderness development indexing, preserving outstanding opportunities for solitude, measuring encounters, and campsite inventories.

Resource inventories may establish other monitoring components over time. These may include protection needs for historic properties and additional protections for sensitive plants. Future accomplishments will depend on the available funding and participation by stewardship partners willing to assist in the collection of the required information.

Note: Please see linked Wilderness Character Monitoring file for more information in response to this monitoring question.