



United States Department of the Interior

NATIONAL PARK SERVICE

North Cascades National Park
Lake Chelan National Recreation Area
Ross Lake National Recreation Area
810 State Route 20
Sedro-Woolley, Washington 98284-9394

IN REPLY REFER TO:

L76

May 24, 2007

Dear Friend of North Cascades:

In accordance with the National Environmental Policy Act of 1969 and National Park Service policies, the National Park Service (NPS) is seeking public input on a proposal to upgrade and expand the network of climate and hydro-meteorological monitoring stations within North Cascades National Park (NOCA).

Purpose and Need

The North Cascade Range strongly influences the weather and climate patterns in the region, creating extreme variability with elevation and distance. This variability is not fully captured by the current network of climate and hydro-meteorological monitoring stations because the few existing monitoring stations are sparsely distributed and located at low to mid-elevations (1650-4600 ft). The purpose of this proposed action is to expand the monitoring network (Figure 1) to gather better information on weather, climate and precipitation patterns. This action is needed to improve monitoring and management of natural resources, enhance the efficiency of hydropower power production and enable better forecasting of flood events in the Skagit River watershed.

Proposed Action

Working cooperatively with Seattle City Light, Puget Sound Energy and the USDA Natural Resource Conservation Service, the NPS proposes to:

- Upgrade the existing Browntop Ridge snow course and Easy Pass aerial marker to snow telemetry stations;
- Discontinue use of the Jasper Pass aerial marker and remove equipment (within 5 years of Easy Pass upgrade);
- Install climate monitoring stations at Silver Glacier and Noisy Glacier.

Snow Telemetry (SnoTel) stations provide near real-time hydro-meteorological conditions at a site, including temperature, precipitation, wind speed and direction, snow depth and snow water content. Stations consist of an instrument shelter (4'x4'x16' tall); a 22-foot tall, three-foot diameter precipitation gauge; two towers (16 and 30ft.); a leveled 20-foot diameter pad for a 10-foot square snow pillow assembly; a marker pole and three shallow underground fluid lines (Figure 2). Towers will be powder-coated brown to lessen visibility.

The glacier climate stations would provide near real-time meteorological data, including temperature, wind speed and direction, relative humidity, snow depth and solar radiation. The sites would consist of a single 20-foot tower mounted to bedrock. The tower would support the monitoring instruments, an 80w solar panel with batteries, two 12" x 14" x 4" white fiberglass weatherproof enclosures for dataloggers and electronics, and a meteor-burst antennae. Towers will be powder-coated brown to lessen visibility.

Currently helicopters are used once a month from January to June to access the snow course sites and fixed winged aircraft are used to read aerial markers. With this proposal, helicopters would be used to shuttle equipment and work crews during station construction and for routine equipment maintenance. The conversion of the Browntop Ridge snow course to an automated SnoTel would result in fewer site visits, reducing maintenance associated flights from six flights to 3-4 annually. The conversion of Easy Pass to an automated SnoTel would replace the monthly low elevation overflights with 3-4 landings annually for maintenance. The addition of climate stations at Silver glacier and Noisy glacier would result in one site visit

annually for maintenance and calibration of equipment. Removal of the Jasper Pass aerial marker would eliminate all flights to this site. All sites, including Jasper Pass, would require an initial five-year calibration period; reduced maintenance flights would begin after this time.

Preliminary Issues

Following is a preliminary list of issues and concerns that we believe need to be considered in the EA.

- Construction and maintenance of the proposed facilities could affect the soundscape and viewshed in limited areas of the Stephen Mather Wilderness.
- Construction and maintenance of the proposed facilities could disturb certain sensitive plants and wildlife in the vicinity of the project area
- Ground disturbance and imported construction materials could inadvertently introduce non-native plant species and affect the integrity of native sub-alpine plant communities.
- Enhancing the efficiency of the Skagit and Baker River hydroelectric facilities could improve air quality by reducing fossil fuel consumption and CO2 emissions
- Improving flood forecasting could enhance public safety and welfare
- Expanding the network of climate and precipitation monitoring stations could enable better understanding of climate change and its potential impacts to natural resources.

This list is not intended to represent all issues and concerns to be addressed; it is intended as a starting point and we encourage your comments.

Please Send Us Your Comments

The NPS is currently seeking public comments on all elements of this proposal to further identify issues and management alternatives to be addressed in an Environmental Assessment (EA). The 30-day public scoping period ends on June 24, 2007. Comments may be submitted on-line or via regular mail as follows:

Online: <http://parkplanning.nps.gov/noca>

At this website you should select the specific North Cascades National Park project for which you wish to comment, in this case the "Upgrade and Expansion of Climate Monitoring Network." You will find the full text document, an on-line comment form and instructions for submitting on-line comments under the Documents and Links tab. Please use the on-line comment form to submit your ideas, questions, or comments.

US mail: Superintendent, North Cascades NPS Complex
810 State Route 20
Sedro-Woolley, WA 98284-1239.

If you provide comments or indicate you are interested in this project, we will notify you of future opportunities to review and comment on the EA. If you have any further questions, please contact Mike Larrabee, Physical Science Technician (360.854.7333); or Jon Riedel, Geologist, (360.854.7330).

Sincerely,



Palmer L. Jenkins
Superintendent

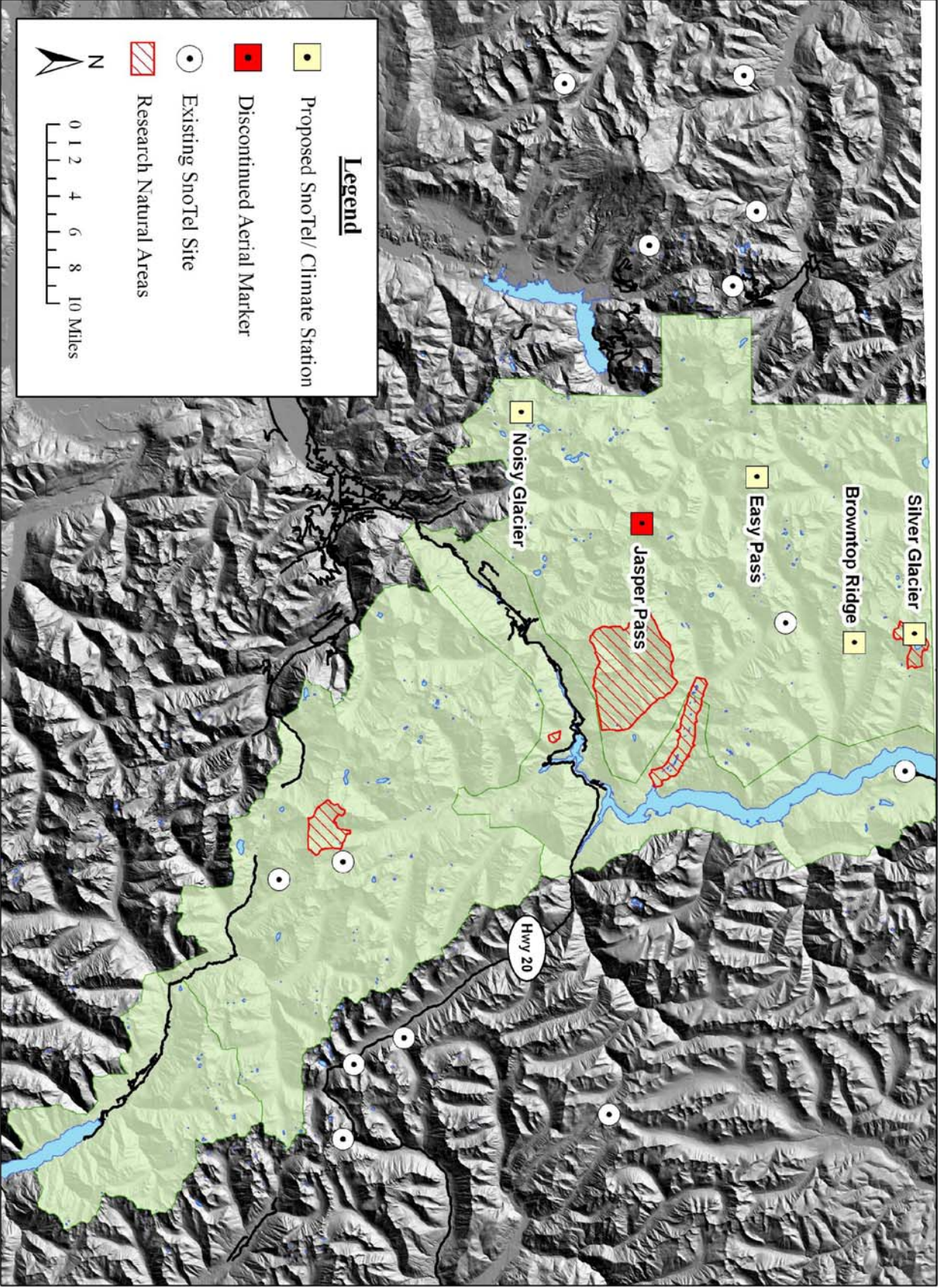
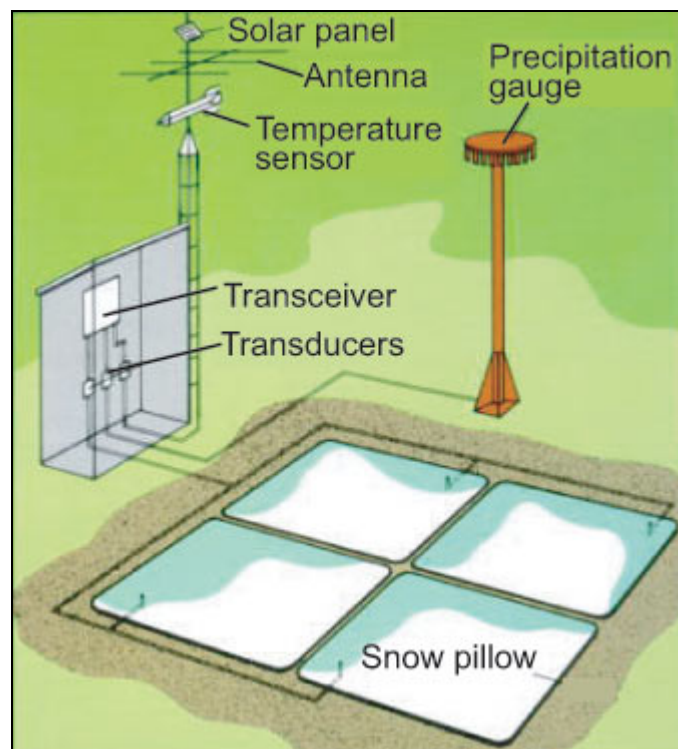


Figure 1. Station Locator Map



Source: USDA National Resource Conservation Service.

Figure 2. Typical SnoTel Layout