Decision Memo

Reclamation of Salt-affected Sites: Teton Wilderness

USDA Forest Service
Buffalo Ranger District, Bridger-Teton National Forest
Teton County, Wyoming

Background

Salt was initially placed in the Teton Wilderness to attract elk and other ungulates in the mid-1940s by the Wyoming Game and Fish Department in an experimental effort to reduce the number of elk wintering at the National Elk Refuge to sustain forage conditions. WGFD discontinued salt placement a year later as the experiment was not considered successful. However, outfitters and other hunters continued the practice of placing mineralized salt as an aid to hunting success. In 1990, the Intermountain Region of the Forest Service prohibited the possession or placement of salt for attracting wildlife in National Forest Wilderness. In 2002, the Wyoming Game and Fish Department reinforced this regulation by prohibiting the practice of taking game over salt sites. However, more than 50 years of salt additions at localized sites has left numerous de-vegetated and compacted areas in the Teton Wilderness, primarily near the southern boundary of Yellowstone National Park.

The Forest Service is responsible for managing the wilderness in accordance with the Wilderness Act. The Wilderness Act defines wilderness partly as an area of undeveloped federal land… "*which is protected and managed so as to preserve its natural conditions and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable*".

Bridger-Teton Forest Plan direction for Wilderness includes the following:

1. Visitor actions which tend to alter the natural behavior of wildlife are not allowed. (Wildlife prescription pg. 188)
2. Soil, water and air values are protected to retain pristine wilderness characteristics. (Soil, water and air prescription pg. 189).
3. Use of salt is controlled so it does not leach into the soil or affect wildlife movements (Teton Wilderness Action Plan pg. 29)

The de-vegetated and compacted salt sites represent an unacceptable degree of soil and vegetation loss in Wilderness (e.g. the average amount of bare ground at salt sites is twice the amount considered acceptable for stock holding areas at campsites – refer to Teton Wilderness Action Plan pg 41). The salt-saturated soils also continue to attract elk and other ungulates, altering wildlife distribution in violation of Forest Plan Wilderness direction.

Field studies were conducted during the summers of 2000 and 2001 to determine site-specific soil characteristics, identify why sites were not re-vegetating and suggest potential reclamation treatments that would be effective in the long-run. Twenty-five salt-affected sites were identified within the Teton Wilderness, primarily within meadows with a few located in forests. The average site size is 2,244 sq. feet ($1/20^{th}$ of an acre) with an average depth of 9.6 inches. The field studies found that soil characteristics differed on salt affected sites compared with nearby control sites, however, salinity did not approach levels where soils would be considered saline,

pH values were not out of the range that would inhibit plant growth, and toxic amounts of sodium and other cations were not found. Compaction and the continuing use of the sites by elk and other ungulates appear to the primary factor affecting plant growth. The conclusion was that soil characteristics (primarily compaction) had changed significantly enough at some sites that plant re-growth would be unlikely to occur without human intervention (Walters 2002).

By implementing the reclamation treatment described in this decision, the Forest Service goals are to encourage plant growth and prevent continued ungulate trampling so that these areas blend in with the surrounding environment and more natural conditions are restored.

Decision

I have decided to implement the proposed action for reclamation of salt sites. Separate grant funding will be sought to implement salt site reclamation work, thus this project will not detract from other Wilderness stewardship needs such as trail maintenance. Additionally, nearly 15 years have past since the use of salt to attract wildlife was prohibited in Wilderness and plant growth has not occurred naturally. There is enough evidence that the sites proposed for treatment were artificially created through past salting or at least were artificially enhanced, thus can no longer be considered "natural". For these reasons, I believe some action is necessary to meet acceptable Wilderness conditions. However, an adaptive approach will be employed. Initially, only the first priority sites (eight sites) will receive treatment. Other sites will be treated in future years only if reclamation on the first priority sites is successful (i.e. plant re-growth occurs), monitoring data indicates a reduction in the total number of sites, and funding and/or volunteer assistance is available.

Site Numbers	Proposed Treatment	Total area	Habitat
#4,13,25,26,31,33,34, 10 (first priority sites)	Gather native seed and organic material (leaf litter) from surrounding area; rake sites to incorporate seed and organic material; cover sites with large trees to prevent continued animal use; add calcium amendment except on site #10.	2,017 square meters	4 are located in meadows; 4 in alpine meadows
#2,3,5,7,1,6,18 (second priority sites)	Cover sites with large trees to prevent continued animal use. Treat only if reclamation and monitoring suggests that additional treatments would be successful.	1,566 square meters	All located in meadows
#8,9,11,12,17,19,22,30,35,36 (third priority sites)	Monitor sites. Do not treat.	1,816 square meters	4 located in forests; 3 in alpine meadows and 3 in meadows.

The attached map shows the location of the eight priority sites to receive reclamation treatment. Mitigation measures included with this project include (1) only hand tools and other non-motorized and non-mechanized tools will be used, (2) standard low impact camping and food storage techniques will be followed by all personnel, (3) no standing trees will be cut, and (4) all seed and plant material will be gathered on site. Monitoring will be conducted at each site to document pre- and post-treatment conditions. Monitoring of conditions on treatment sites will occur annually at the same time of year until vegetation cover is at least 50% of the vegetation cover found on control sites (noxious weeds are not counted as part of vegetation cover and will be mechanically removed if observed). If no plant re-growth is observed within two years, the

treatment will be considered unsuccessful. Education and enforcement actions will also be implemented in cooperation with WGFD and other partners to increase compliance with existing prohibitions on the use of salt in Wilderness and hunting over salt sites.

This action is categorically excluded from documentation in an Environmental Impact Statement or an Environmental Assessment because it is consistent with category 31.2-5 (Forest Service Handbook 1909.15, Sec. 31.2). This category is for "Regeneration of an area to native tree species, including site preparation which does not involve the use of herbicides or result in vegetation type conversion". While this action will not regenerate tree species on sites located in meadows, it is consistent with this category in that it aims to regenerate an area through site preparation work. This action does not involve the use of herbicide nor will it result in a vegetation type conversion since the treatment calls for gathering native seed and organic matter from the surrounding area and allowing the sites to naturally re-generate.

The categorical exclusion is appropriate in this situation because resource specialists who analyzed the proposed action found no extraordinary circumstances with potential adverse effects on the environment.

- There will be no adverse effects on steep slopes (salt sites are all located on flat terrain), highly erosive soils, roadless areas, or Wild and Scenic Rivers.
- Consultation with the State Historic Preservation Office (SHPO) confirmed no effect on heritage resources since the treatment will occur on existing disturbed sites; no new soil disturbance will occur.
- The treatment is considered beneficial to ephemeral wetland sedge meadows. There is no permanent or flowing water on any of the sites and treatments will enhance sedge growth on the denuded sites.
- No soil damage is expected. The primary goal of this project is to improve soil conditions. Only hand tools and "primitive" non-motorized and non-mechanized tools will be used to reduce site compaction. No erosion or sedimentation into perennial water sources will occur.
- The Biological Assessment indicates there will be no effect on Canada lynx, grizzly bear, and bald eagles and is not likely to jeopardize the continued existence of the experimental gray wolf population.
- The Biological Evaluation indicates there will be no adverse effect on any Sensitive species that would contribute to a trend towards federal listing.
- The reclamation work will occur entirely within Wilderness, however the effects are expected to be beneficial in terms of improving wilderness character, especially with respect to natural vegetation and untrammeled wildlife qualities. The action will have no affect on the undeveloped quality of wilderness, or on the opportunity for solitude or a primitive and unconfined type of recreation.

Public Involvement

A proposal to reclaim salt-affected sites in the Teton Wilderness was provided to the public and agencies for comment on February 10th, 2003. The scoping document was mailed to approximately 70 individuals or agencies including Teton Wilderness outfitters, soil scientists, wilderness researchers, local and regional environmental, wildlife and wilderness organizations, Teton Conservation District, Park Service and Forest Service offices bordering the Teton Wilderness, state and federal wildlife agencies, and elected representatives. Stories about Teton

Wilderness salt site issues and proposed reclamation also appeared in local, regional, and national newspapers and magazines. In addition, articles appearing in organizational newsletters informed more people about the proposed project. A total of 40 responses were received. None of the responses raised issues that generated alternatives to the proposed actions. The comments can be categorized as either expressing support for the project or supporting the no action alternative (saying that funding and volunteer help is better spent on other projects, reclamation may not be effective, or salt sites will eventually reclaim themselves). Comments from those expressing support for reclamation included requests for increased enforcement of existing laws and development of a monitoring plan, as well as suggestions to aid education and enforcement efforts. A number of commenters offered volunteer assistance. Comments requesting that the area around salt sites should be closed to hunting are outside the authority of the Forest Service.

Findings Required by Other Laws

This decision is consistent with standards and guidelines and desired future direction for Wilderness (DFC 6) contained in the Bridger-Teton National Forest Land and Resource Management Plan (Forest Plan). This decision is also consistent with the Wilderness Act of 1964 and the Wyoming Wilderness Act of 1984.

Implementation Date

This project is expected to be implemented in the summer of 2004.

Administrative Review or Appeal Opportunities

This decision is not subject to administrative appeal pursuant to Forest Service regulations 36 CFR 215.4.

Contact Person

For additional information regarding salt site project implementation, contact Rob St John, Teton Wilderness manager (307-543-0120). Additional information about this decision may also be obtained from Linda Merigliano, Recreation/Wilderness Program Manager (307-739-5428).

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TIMOTHY SHORT Date
Deputy District Ranger, Buffalo District