Eastern Washington and San Juan Resource Management Plan

Scoping Report Supplement:

Comments Received by the Bureau of Land Management during the Formal Scoping Period (April 30 – July 12, 2010)

Introduction

During the scoping period (April 30, 2010, through July 12, 2010) for the Eastern Washington and San Juan Resource Management Plan (RMP) the Bureau of Land Management (BLM) received 134 submissions (letters, emails, online submissions, or paper comment forms). The text from these submissions appears below. Personal identifying information contained in the submissions has been removed to protect the privacy of the submitter.

The submissions are organized by region (eastern Washington or San Juan Archipelago) and by the organizational categories of the entity that submitted the comments. If you are viewing this document electronically, click on the titles below to go to that section:

Eastern Washington:

1. Other Federal Agencies
2. Native American Tribes
3. State Agencies
4. Counties and Local Governments
5. Non-Governmental Organizations
6. Public-at-Large

San Juan Archipelago:

1. Other Federal Agencies
2. Native American Tribes
3. State Agencies
4. Counties and Local Governments
5. Non-Governmental Organizations
6. Public-at-Large

Eastern Washington

Other Federal Agencies

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

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JUN 21 2010

Bureau of Land Mgmt.
Spokane District

June 17, 2010

RBT

Robert Towne
District Manager
Spokane District Office
Bureau of Land Management
1103 North Fancher Road
Spokane Valley, Washington 99212

Re: Scoping Comments the draft Eastern Washington and San Juan RMP/EIS
EPA Region 10 Project Number: 10-026-BLM

Dear Mr. Towne:

The U.S. Environmental Protection Agency (EPA) has reviewed the Bureau of Land Management (BLM) Notice of Intent (NOI) to prepare a draft Resource Management Plan (RMP)/Environmental Impact Statement (EIS) for Eastern Washington and San Juan Planning Area in Washington State. The National Environmental Policy Act (NEPA) and Clean Air Act (CAA) §309 require EPA to review and comment in writing on the environmental impacts associated with all major federal actions.

According to the NOI, BLM proposes to analyze potential environmental impacts of a proposal to replace the existing Spokane RMP and include the San Juan Islands in the new RMP. The planning area would encompass 445,000 acres of public land within BLM's Spokane District. Because of the extent of the planning area, the draft RMP/EIS should clarify whether or not the new RMP/EIS would serve as a comprehensive planning framework that would guide development of future individual plans and projects. Individual plans or projects tiered to the RMP/EIS should be subject to separate NEPA analysis and review to insure issues specific to each subsequent action can be fully analyzed and mitigation measures identified.

The NOI identifies preliminary issues and planning criteria that will be addressed in the draft RMP/EIS analysis. In addition to these, we offer the attached scoping comments to inform BLM of issues that EPA believes are significant and that should be addressed as the draft RMP/EIS analysis moves forward. If you have questions about our comments, please contact me at (206) 553-6322.

Sincerely,

Theogene Mbabaliye
Environmental Review and Sediment Management Unit

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EPA Scoping Comments on the proposed Eastern Washington and San Juan RMP/EIS

Purpose and Need

The draft RMP/EIS should clearly identify the underlying purpose and need to which BLM is responding to in proposing the alternatives, including the broader public interest and need. The purpose of the proposed action would typically be the specific objectives of the new RMP/EIS, while the need for the plan may be to eliminate a broader underlying problem or take advantage of an opportunity. Thus, the purpose and need should be a clear, objective statement of the rationale for the proposed action, as it provides the framework for identifying the RMP/EIS alternatives.

Range of Alternatives

The draft RMP/EIS should include a range of reasonable alternatives that meet the stated purpose and need for the draft RMP/EIS and that are responsive to the issues identified during the scoping process. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives be considered, even if some of them could be outside the capability of the applicant or the jurisdiction of the agency. Also, the environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. The potential impacts of each alternative should be quantified to the greatest extent possible. EPA encourages selection of feasible alternatives that will minimize environmental degradation.

Environmental effects

The draft RMP/EIS should include environmental effects and mitigation measures. This would involve delineation and description of the affected environment, indication of resources that would be impacted, the nature of the impacts, and a listing of mitigation measures for the impacts. The following topics are of particular interest to EPA.

Water resources

Water quality degradation is one of EPA's primary concerns. Section 303(d) of the Clean Water Act (CWA) requires the state of Washington and Tribes with approved water quality standards to identify water bodies that do not meet water quality standards and to develop water quality restoration plans to meet established water quality criteria and associated beneficial uses. The draft RMP/EIS should disclose which waters might be impacted, the nature of potential impacts, and specific pollutants likely to impact those waters. It should also report those water bodies potentially affected by the draft RMP/EIS that are listed on the State's and Tribes' most current EPA-approved 303(d) lists. The draft RMP/EIS document should describe existing restoration and enhancement efforts for those waters, how the draft RMP/EIS will coordinate with on-going protection efforts, and any mitigation measures that will be implemented to avoid further degradation of water quality within impaired waters. Please note that antidegradation provisions of the CWA apply to those water bodies where water quality

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standards are currently being met, and prohibit degrading water quality. The draft RMP/EIS evaluation should indicate how the antidegradation provisions would be met.

Public drinking water supplies and/or their source areas often exist in many watersheds. Source water areas may exist within the proposed planning area. Source water is water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are delineated and mapped by the state for each federally-regulated public water system. The 1996 amendments to the Safe Drinking Water Act (SDWA) require federal agencies to protect sources of drinking water for communities. Because of that, state agencies have been delegated responsibility to conduct source water assessments and provide a database of information about the watersheds and aquifers that supply public water systems. Since projects under the RMP/EIS may impact sources of drinking water, EPA recommends that BLM contact the Washington State Department of Ecology to help identify source water protection areas within the planning area. The draft RMP/EIS should identify all:

(a) Source water protection areas within the project area.
(b) Activities that could potentially affect source water areas.
(c) Potential contaminants that may result from the proposed project.
(d) Measures that would be taken to protect the source water protection areas.

As the planning of the draft RMP/EIS continues, BLM should evaluate the impacts roads would have on waterbodies in the planning area. Specifically, roads contribute more sediments to streams, interrupt the subsurface flow of water, especially where roads cut into steep slopes, may fragment habitats and disturb wildlife, and accelerate noxious weed infestations. The draft RMP/EIS should include data about existing road networks and evaluate the change in road miles and density that will occur because of the proposed RMP/EIS projects and predicted impacts to water quality by roads. The draft RMP/EIS should note that, under the CWA, any construction project disturbing a land area of one or more acres requires the National Pollutant Discharge Elimination System (NPDES) permit for discharges to waters of the U.S. The draft RMP/EIS should document the plan's consistency with applicable storm water permitting requirements and should discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality.

The draft RMP/EIS projects that would involve construction of facilities and access roads may also compact the soil, thus changing hydrology, runoff characteristics, and affecting flows and delivery of pollutants to water bodies and ecological function of the area. The draft RMP/EIS should include a detailed discussion of the cumulative effects from this and other projects on the hydrologic conditions within the planning area. The document should clearly depict reasonably foreseeable direct, indirect, and cumulative impacts to groundwater and surface water resources. For groundwater, the potentially affected groundwater basin(s) should be identified and any potential for impacts to springs or other open water bodies and biologic resources should be analyzed.

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Wetlands and riparian areas

The draft RMP/EIS should describe all waters of the U.S. that could be affected by alternatives, and include maps that clearly identify all waters within the planning area. The document should include data on acreages and channel lengths, habitat types, values, and functions of these waters. Projects affecting waters of the U.S. would need to comply with CWA §404 requirements. Section 404 regulates the discharge of dredged or fill material into waters of the U.S., including wetlands and other special aquatic sites. The U.S. Army Corps of Engineers issues Section 404 permits.

If anticipated projects under the RMP/EIS would involve discharge of dredged or fill material into waters of the U.S., the draft RMP/EIS would need to include information regarding alternatives to avoid the discharges or how potential impacts caused by the discharges would be minimized and mitigated. This discussion would include the following elements:

(a) Acreage and habitat type of waters of the U.S. that would be created or restored.
(b) Water sources to maintain the mitigation area.
(c) Re-vegetation plans, including the numbers and age of each species to be planted, as well as special techniques that may be necessary for planting.
(d) Maintenance and monitoring plans, including performance standards to determine mitigation success.
(e) Size and location of mitigation zones.
(f) Parties that would be ultimately responsible for the plan's success.
(g) Contingency plans that would be enacted if the original plan fails.

Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation.

Activities affecting floodplains are also regulated under Section 404 of the CWA and Executive Order 11988, *Floodplain Management*. Floodplains perform a vital function of conveying and dissipating the volume and energy of peak surface runoff flows downstream. Periodic flood flows form and sustain specific habitat types such as wetland and riparian areas. The RMP/EIS should therefore include information on any activities that could occur in floodplains, what alternatives were considered, and steps to be taken to reduce impacts to floodplains. Because of their importance, unimpaired flood flows within floodplains should be preserved and flood-related damage to downstream resources should be prevented.

Vegetation and Habitat

Because the proposed plan may have impacts on fish and wildlife habitat, and habitat connectivity, the RMP/EIS should describe the current quality and potential capacity of habitat, its use by fish and wildlife, and identify known fish and wildlife corridors, migration routes, and areas of seasonal fish and wildlife congregation. The RMP/EIS should also evaluate effects on fish and wildlife from habitat removal and alteration, aquatic and terrestrial habitat fragmentation caused by roads, land use, management activities, and other human activity. The evaluation should also include impacts on plant species and their habitats.

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Grazing is a common activity in many watersheds and its management has been contentious due to potential impacts on water resources and vegetation, particularly in riparian areas. The concerns with degraded riparian zones following grazing include loss of biodiversity, wildlife habitat, adverse impacts to water quality, and negative affects to fish populations. Riparian zones with stable streambanks reduce, for example, sediment load to streams. This is critical for fish spawning, which is an important factor for the recovery of declining and endangered species such as salmonids. The draft RMP/EIS should therefore discuss grazing impacts to riparian zones and how grazing will be managed to promote biodiversity - a vital component of healthy ecosystems. Information on habitat and vegetation types where grazing could be permitted should be used to develop a grazing management strategy that would ensure sustainable use of rangelands in the planning area. The draft plan should include a map of areas that could be subject to grazing so potential conflicts with other uses can be determined and measures to reduce them and other impacts identified.

Because of activities under the proposed RMP/EIS, invasive species could also aggressively spread into newly opened up areas. The RMP/EIS should include existing BLM direction for noxious weed management, a description of current conditions, and best management practices that will be utilized to reduce the likelihood of introduction and spread of invasive species in the planning area. The measures to reduce impacts due to noxious weeds should be consistent with *Executive Order 13112* on Invasive Species.

Air quality impacts

The draft RMP/EIS should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards (NAAQS), and criteria pollutant non-attainment areas in the planning area and vicinity. The analysis should estimate emissions of criteria pollutants for the planning area and discuss the timeframe for release of these emissions over the lifespan of the proposed plan. The draft RMP/EIS document should also include analyses of the potential impacts to air quality (including cumulative and indirect impacts) from associated projects, particularly those involving construction activities. The draft RMP/EIS should specify emission sources and quantify them. Such an evaluation is necessary to assure compliance with State and federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality. The draft RMP/EIS should include the following:

(a) Detailed information about ambient air conditions, NAAQS, and criteria pollutant non-attainment areas in all areas considered for the airport and adjacent areas.
(b) Data on emissions of criteria pollutants from the proposed project and discuss the timeframe for release of these emissions.
(c) Specific information about pollutant from mobile sources, stationary sources, and ground disturbance. This source specific information should be used to identify appropriate mitigation measures and areas in need of the greatest attention.
(d) An Equipment Emissions Mitigation Plan that identifies actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and NOx associated with construction activities.

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Endangered Species Act (ESA)

Evaluation of the draft RMP/EIS should identify the endangered, threatened, and candidate species under ESA, and other sensitive species within the project area. The draft RMP/EIS should describe the critical habitat for the species; identify any impacts the draft RMP/EIS will have on the species and their critical habitats; and how the draft RMP/EIS will meet all requirements under ESA, including consultation with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA). The RMP/EIS may need to include a biological assessment and a description of the outcome of consultation with the USFWS under Section 7 of the ESA. BLM actions should promote the recovery of declining populations of species.

Cumulative Effects

Because BLM lands are often intertwined with a mix of other privately, state, and federally owned lands, the draft RMP/EIS should assess cumulative effects by analyzing the effects of past, present and reasonably foreseeable plans and projects proximate to the planning area and its vicinity. Where adverse cumulative impacts may exist, the draft RMP/EIS should disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts. EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found online:
http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf.

We will assess whether the RMP/EIS's cumulative effects analysis include:

a) Resources, if any, that are being cumulatively impacted.
b) Appropriate geographic area and the time over which the effects have occurred and will occur.
c) All past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern in the planning area.
d) A benchmark or baseline.
e) Scientifically defensible threshold levels.

Climate change effects

Currently, there is concern that continued increases in greenhouse gas emissions resulting from human activities contribute to climate change. Effects of climate change may include changes in hydrology, sea level, weather patterns, precipitation rates, and chemical reaction rates. The draft RMP/EIS document should therefore consider how resources affected by climate change could potentially influence the draft RMP/EIS and vice versa, especially within sensitive areas. Also, the draft RMP/EIS should quantify and disclose greenhouse gas emissions from potential activities under the plan and discuss mitigation measures to reduce emissions.

Recreation and Access

The impacts from recreation and access should be analyzed and reported in the RMP/EIS. Impacts such as those from off road vehicle use result in habitat destruction, increased sedimentation to water bodies, noise and air pollution. The RMP/EIS should disclose all impacts

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associated with such activities and describe what actions will be taken to manage recreational and accessibility opportunities in the project area.

Coordination with Tribal Governments

If projects under the RMP/EIS would affect any Tribe's resources, then the RMP/EIS document should describe the process and outcome of government-to-government consultation between BLM and each of tribal government involved, issues that were raised, if any, and how those issues were addressed. Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the U.S. government-to-government relationships with Indian tribes.

Environmental Justice and Public Participation

The draft RMP/EIS should include an evaluation of environmental justice populations within the planning area. If such populations exist, the draft RMP/EIS should address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the plan's impact on minority and low-income populations should reflect coordination with those affected populations. One tool available to locate Environmental Justice populations can be found online at: http://www.epa.gov/enviro/ejl.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process.

Monitoring

Because projects under the RMP/EIS could potentially impact a variety of resources in the planning area for an extended period, we recommend that the RMP/EIS projects be designed to include an environmental inspection and mitigation monitoring program to ensure compliance with all mitigation measures and assess their effectiveness. The RMP/EIS should describe the monitoring program and how it would be used as an effective feedback mechanism so that any needed adjustments can be made to projects under the new RMP/EIS to meet environmental objectives.

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United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
909 First Avenue, Fifth Floor
Seattle, Washington 98104-1060

IN REPLY REFER TO
EC

June 25, 2010

Mr. Scott Pavey
Planning and Environmental Coordinator
Bureau of Land Management, Spokane District
Attention: Resource Management Policy
1103 North Fancher Road
Spokane Valley, WA 99212
OR_Spokane_RMP@blm.gov

Dear Mr. Pavey:

The National Park Service, Pacific West Region (hereafter NPS), has reviewed the "Notice of Intent To Prepare a Resource Management Plan [RMP] for the Eastern Washington and San Juan Planning Area in the State of Washington Associated Environmental Impact Statement" published by the Bureau of Land Management (BLM). We offer the following comments for your consideration.

The RMP planning area map covers counties in which units of the National Park System are generally located, including San Juan National Historical Park, Lake Roosevelt National Recreation Area, Lake Chelan National Recreation Area, Whitman Mission National Historic Site, and Nez Perce National Historical Park. In addition, the NPS manages the National Natural Landmark (NNL) program. Based on the large-scale map, it is difficult to determine whether NPS units or NNL sites are located on or near BLM land. As BLM prepares the RMP, if it appears that an NPS unit or NNL site may be impacted, please contact us as soon as possible for further coordination. (Contact information is listed below.)

It does appear that portions of the Lewis and Clark National Historic Trail (the Trail) are located on or near BLM land identified within the RMP planning area. The Trail was established by Congress in an amendment to the National Trails System Act in 1978 [16 U.S.C. § 1244(a)(6)]. The NPS administers the Trail and is charged under this Act with the identification and protection of the historic route, remnants, and artifacts of the Lewis and Clark Expedition (the Expedition) for public use and enjoyment. In addition, NPS has a responsibility under the Organic Act (16 U.S.C. §1, *et seq.*) to preserve unimpaired the scenery and the natural and cultural resources of the National Park System for the enjoyment, education, and inspiration of this generation and future generations.

The Trail follows the outbound and inbound routes of the Expedition, from Wood River, Illinois to the Mouth of the Columbia River in Oregon. In southeastern Washington, the Expedition traveled by both water and land as they proceeded to the Pacific Ocean in 1805 and returned east in 1806. The routes the Expedition used pass through eight counties within the RMP planning area: Asotin, Benton, Columbia, Franklin, Garfield, Klickitat, Walla Walla and Whitman. In addition to the historic river and overland routes, the following highways have been designated as Lewis and Clark auto tour routes in the state of Washington: US 12, US 82, US 730, State Route (SR) 14, and SR 124. There are several parcels of BLM land that are adjacent to or within five miles of portions of these routes.

Many visitors experience the Trail by traveling the auto tour route and stopping at interpretive and recreational sites along the way. The use or development of BLM land within the RMP planning area may impact Trail resources and the Trail visitor experience. The NPS encourages BLM to protect Trail resources under its jurisdiction in a manner that retains the views, landscapes, wildlife and cultures encountered by the Expedition while also allowing for appropriate recreational opportunities. We also support conservation or restoration of natural ecosystem conditions along the Trail, whenever feasible. If development will be allowed, any adverse effects should be minimized. In addition, if recreational development will be authorized, we encourage BLM and any applicant to use the Recreational Opportunity Spectrum and the State Comprehensive Outdoor Recreational Plan to help identify the best locations for recreational opportunities while minimizing impacts on natural resources.

Please also be aware that the NPS is initiating a congressionally-mandated feasibility study of the Naches Pass Trail, the Upper Columbia River Trail, and the Whitman Mission Trail (all of which cross BLM's planning area) as additional components of the Oregon National Historic Trail (NHT). A map of these routes is enclosed. The purpose of the four-year study is to determine whether these and other proposed additional routes meet the designation criteria of the National Trails System Act. The NPS will be consulting BLM and other affected land management agencies in this endeavor. Based on the determinations of the feasibility study, Congress will then decide whether to designate the routes as part of the National Trails System. In developing its new RMP, BLM may wish to take into consideration any management implications of NHT designation, should that be the ultimate result of this process.

Thank you for the opportunity to provide these comments. If NPS can be of any assistance in the planning process, please contact us.

For questions concerning Lewis and Clark National Historic Trail, please contact Dan Wiley, Chief of Resources Stewardship, Lewis and Clark National Historic Trail, at (402) 661-1830 or at Dan_Wiley@nps.gov.

For questions concerning the Oregon National Historic Trail, please contact Lee Kreutzer, Cultural Resource Specialist, at (801) 741-1012 extension 118 or at Lee_Kreutzer@nps.gov.

For questions concerning any NPS units, please contact Kelly Powell, National Park Service, at (206) 220-4106 or at Kelly_Powell@nps.gov.

For questions concerning any NNL sites, please contact Steve Gibbons, NNL Coordinator, at (360) 854-7203 or at Steve_Gibbons@nps.gov.

Sincerely,

Rory D. Westberg
Deputy Regional Director

Washington Study Routes

DRAFT

Eastern Washington

Native American Tribes

Confederated Tribes and Bands
of the Yakama Nation

RECEIVED
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Bureau of Land Mgmt.
Spokane District

Established by the
Treaty of June 9, 1855

April 15, 2010

Robert B. Towne, District Manager RBT
Bureau of Land Management
Spokane District Office
1103 N. Fancher Road
Spokane Valley, WA 99212-1275

Dear Mr. Towne:

Thank you for initiating collaboration with the Yakama Nation and for inviting the Tribe to participate as a cooperating agency in the planning process for developing a resource management plan (RMP) and the associated environmental impact statement (EIS) for lands administered by the Bureau of Land Management (BLM) in Eastern Washington and the San Juan Archipelago.

We greatly appreciate this important opportunity to protect our traditional resources and are interested in collaborating with the BLM to develop the RMP and the EIS. A majority of the land that will be included in this plan lie within the ceded and traditional use areas of the Yakama Nation, the legal rights to which were affirmed by the Treaty of 1855, between the Yakama Nation and the United States Government.

To further discuss our involvement and government-to-government coordination, please contact Philip Rigdon, Department of Natural Resources Deputy Director, at (509) 865-5121 extension 4655. We look forward to working with you and the Spokane District BLM.

Sincerely,

Harry Smiskin

Harry Smiskin, Chairman
Yakama Nation Tribal Council

cc: Ruth Jim, Chairman, Roads, Irrigation & Land Committee
Philip Rigdon, Deputy Director, Dept. of Natural Resources
Kristina Proszek, Environmental Review Coordinator, Environmental Mgt. Program

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

June 25, 2010

Robert B. Towne, District Manager
Bureau of Land Management
Spokane District Office
1103 N. Fancher Road
Spokane Valley, WA 99212-1275

Re: Scoping Comments for Eastern Washington and San Juan Resource Management Plan

Dear Mr. Towne:

I would like to thank you for contacting and inviting the Yakama Nation in March of this year to participate as a cooperating agency in developing a resource management plan and an associated environmental impact statement for lands administered by the Bureau of Land Management (BLM) in Eastern Washington and the San Juans.

The Yakama Nation continues to be interested in collaborating with BLM to develop this important plan and potentially as a cooperating agency. In whatever capacity we choose to serve, it is our hope that we can be involved from the earliest stage possible.

Please contact me at your earliest convenience to arrange a meeting to discuss the plan, our involvement, and the resource issues and land management concerns that are most important to the Yakama Nation. I can be reached at (509) 865-5121 extension 4655. I look forward to hearing from you.

Sincerely,

Philip Rigdon, Deputy Director
Department of Natural Resources

Enclosure: Letter dated April 15, 2010

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

April 15, 2010

Robert B. Towne, District Manager
Bureau of Land Management
Spokane District Office
1103 N. Fancher Road
Spokane Valley, WA 99212-1275

Dear Mr. Towne:

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We greatly appreciate this important opportunity to protect our traditional resources and are interested in collaborating with the BLM to develop the RMP and the EIS. A majority of the land that will be included in this plan lie within the ceded and traditional use areas of the Yakama Nation, the legal rights to which were affirmed by the Treaty of 1855, between the Yakama Nation and the United States Government.

To further discuss our involvement and government-to-government coordination, please contact Philip Rigdon, Department of Natural Resources Deputy Director, at (509) 865-5121 extension 4655. We look forward to working with you and the Spokane District BLM.

Sincerely,

Harry Smiskin, Chairman
Yakama Nation Tribal Council

cc: Ruth Jim, Chairman, Roads, Irrigation & Land Committee
Philip Rigdon, Deputy Director, Dept. of Natural Resources
Kristina Proszek, Environmental Review Coordinator, Environmental Mgt. Program

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

Eastern Washington

State Agencies

WASHINGTON STATE DEPARTMENT OF
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Peter Goldmark - Commissioner of Public Lands

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Spokane District

May 4, 2010

Robert B. Towne, District Manager
Bureau of Land Management
1103 N. Fancher Road
Spokane Valley, WA 99212-1275

Subject: Development of Resource Management Plan

Dear Mr. Towne:

Thank you for your recent letter inviting the Department of Natural Resources (DNR) to be a cooperating agency in the development of a resource management plan for Bureau of Land Management (BLM) lands in Eastern Washington and the San Juan Islands. In better economic times, we would welcome the opportunity to partner with BLM in this effort. Unfortunately, we currently do not have the resources to support development of the resource management plan (RMP), and especially are unable to lend resources to preparation of an Environmental Impact Statement (EIS) supporting the RMP.

The DNR applauds your undertaking this planning effort and would like to be involved in a less formal and less resource-intensive role. We are willing to share information that we may have that would assist with the preparation of the plan and EIS, including Natural Heritage information, shrub-steppe inventories, agricultural management activities on state trust lands, and our asset management strategies.

We also would appreciate being kept informed of meetings, presentations, and document review opportunities related to development of the RMP and EIS, and will participate to the extent our resources allow. Please contact Steve Saunders, Asset and Property Management Division Manager, at 360-902-1488, regarding our involvement.

Sincerely,

L. S. Young for

Peter Goldmark
Commissioner of Public Lands

cc: Leonard Young, Department Supervisor
Clay Sprague, Deputy Supervisor for Uplands
#10-385

1111 WASHINGTON ST SE ▮ MS 47001 ▮ OLYMPIA, WA 98504-7001
TEL (360) 902-1000 ▮ FAX (360) 902-1775 ▮ TTY (360) 902-1125 ▮ TRS 711 ▮ **WWW.DNR.WA.GOV**
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Spokane District

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711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

May 26, 2010

Robert B. Towne, District Manager
Bureau of Land Management
Spokane District Office
1103 N. Fancher Road
Spokane Valley, WA 99212-1275

RE: BLM Resource Management Plan – Eastern & Central Washington

Dear Mr. Towne:

I appreciate your invitation to participate in the development of a Resource Management Plan for Bureau of Land Management lands in eastern and central Washington. This is an opportune time for our agencies to collaborate on natural resource planning and management. During the next five years, most of the cities and counties in eastern and central Washington, in cooperation with the Washington State Department of Ecology (Ecology), will be engaged in comprehensive updates to their shoreline master programs. The Shoreline Management Act and the local shoreline master programs address the management of rivers, lakes greater than 20 acres and marine waterfronts, as well as associated shorelands, wetlands and floodplains.

I am designating Sara Hunt, Section Manager of the Shorelands and Environmental Assistance Program in eastern Washington, as Ecology's representative in this planning effort. You can contact Sara at sara.hunt@ecy.wa.gov / (509) 329-3561. Grant Pfeifer, the Regional Director for Ecology's Eastern Regional Office in Spokane, is also available to support the planning effort and assist with resolution of any significant policy issues that might arise. I am interested in exploring the benefits and responsibilities of participating as a cooperating agency.

We look forward to working with you to craft a Resource Management Plan that supports our mutual goals of excellent stewardship of Washington's natural resources.

Sincerely,

Ted Sturdevant
Director

cc: Sara Hunt, Ecology, SEA Section Manager, ERO
Grant Pfeifer, Ecology, ERO Regional Director
Scott Pavey, BLM
Gordon White, Ecology, SEA Program Manager

Rex Derr
Director

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STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
1111 Israel Road SW • P.O. Box 42650 • Olympia, Washington 98504-2650
(360) 902-8500 • Washington Telecommunications Relay Service at (800) 833-6388
www.parks.wa.gov

June 25, 2010

Mr. Scott Pavey, Spokane District Office
United States Bureau of Land Management
1103 N. Fancher Road
Spokane Valley, Washington 99212-1275

Dear ~~Mr. Pavey~~ Scott,

In response to your April 20, 2010 correspondence, I am submitting this letter expressing our interest in participating in the development of a resource management plan (RMP) for Bureau of Land Management (BLM) public lands administered by the Spokane District office. The Washington State Parks and Recreation Commission (Parks) has long supported proactive planning as a means to guide future land use decisions.

As we discussed via phone, in many areas of Washington State, Parks and BLM have either adjacent lands or Parks is directly involved in managing BLM owned lands. In particular, there are areas in the San Juan Islands and eastern Washington where Parks management of BLM lands occurs without a formal "Memorandum of Understanding." It is our hope that the RMP process can be used to provide a policy basis for establishing these agreements where necessary.

You and I had discussed the concept of a "hybrid" approach to our participation in the RMP process. This would allow Parks to participate in discussions that involve specific areas where we have common interests or there is a co-management scenario. This level of participation would allow Parks to have meaningful input early in the process without necessarily participating in meetings on a monthly basis.

Please note that I will be your primary staff contact. I have enclosed a business card with my contact information. Thank you for inviting us to participate and we look forward to working with your agency.

Sincerely,

Randy Kline
Environmental Program Manager

Cc: Larry Fairleigh, Washington State Parks, Assistant Director
Jim Harris, Washington State Parks, Eastern Region Manager
Eric Watilo, Washington State Parks, Northwest Region Manager

Encl: Contact information for Randy Kline

"Honsinger, Dave"
<HonsinD@wsdot.wa.gov>
06/25/2010 01:31 PM

To <OR_Spokane_RMP@blm.gov>
cc "Kay, Charlene" <KayC@wsdot.wa.gov>, "Preston, Bill" <PrestoB@wsdot.wa.gov>, "Carlson, Todd" <CarlsoT@wsdot.wa.gov>, "Woehler, Kerri"
bcc
Subject Scoping comments from WSDOT

As far as I know, WSDOT staff only attended the one public open house that was in Wenatchee. So my comments at this time are a product of what I heard at that meeting and with internal discussions with WSDOT staff in the Spokane and Yakima areas of Eastern Washington.

The areas that WSDOT believes BLM should include in your Resource Management Plan are:

- Use of mineral resources. WSDOT is mainly interested in sands and gravels or quarry sites that would have quality material for roadway construction. WSDOT would like the ability to continue using any existing sites and have the possibility to open up new sites.

- WSDOT would like the ability to use BLM land for related transportation needs like communication tower sites, maintenance activities, and other miscellaneous functions.

- We would like the issue on ingress and egress to BLM land addressed. WSDOT would prefer that vehicular access be developed from the County roadway system. If direct access to a state highway is necessary, then the appropriate access factors need to be considered. Would certain multiple uses of BLM land have unique access issues, i.e. heavy large trucks to maintain energy development facilities? WSDOT is willing to help write up the level of detail in the RMP that would clarify these issues. A criteria to apply in this area could be the existing State laws for access control; either Managed Access or Limited Access.

- WSDOT would like the issues identified when some BLM land may be needed for highway right of way when highway improvements are anticipated. WSDOT wants to have the opportunity to acquire in fee or by easement the land area needed for highway widening or re-alignments.

- If the Resource Management Plan will address the wildlife on or near BLM land, and if wildlife conflicts with the state highway are anticipated, then this issue should be discussed in the RMP. WSDOT wants to address and reduce the risk of wildlife/vehicle collisions. The Plan could identify areas of concern and propose reasonable mitigation such as; wildlife crossings, wildlife fencing, highway warning signs, or roadside markings to deter wildlife.

I note that the deadline for scoping comments has be extended to July 12, 2010. There may be additional WSDOT comments submitted by that date.

Please keep me informed via email on the RMP process. I will view draft documents on the web. My personal information does not have to be withheld from public review.

==========

David A. Honsinger, PE
North Central Region:
Transportation Planning Manager
WA State Dept. of Transportation
1551 N. Wenatchee Avenue
Wenatchee, WA 98801
ph: 509.667.2906 fax: 509.667.2940
e-mail: honsinD@WSDOT.WA.GOV
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RECEIVED
JUL 14 2010
Bureau of Land Mgmt.
Spokane District

Washington Department of FISH AND WILDLIFE

2315 North Discovery Place, Spokane Valley, WA 99216-1566
509-892-1001 509-921-2440 Fax

July 9, 2010

Scott Pavey, Planning and Environmental Coordinator
Bureau of Land Management - Border Field Office
1103 North Fancher
Spokane, WA 99212

Subject: Washington Department of Fish and Wildlife Scoping Comments – Bureau of Land Management Resource Management Plan (RMP)

Dear Mr. Pavey:

The Washington Department of Fish and Wildlife (WDFW) has reviewed the initial list of preliminary issues and planning criteria identified by the Bureau of Land Management (BLM) and believe that they provide a solid starting point for the development of the Resource Management Plan (RMP). We are also pleased to be participating as a cooperating agency with the Bureau of Land Management (BLM) as you develop a comprehensive RMP for the 425,000 acres of public land owned by BLM in Eastern Washington and the San Juan Archipelago.

It is our understanding that BLM acreage in Eastern Washington is currently managed under an existing RMP which is being updated but that the Bureau lands within the San Juan Archipelago have no current guiding document and information that is available is substantively out of date. Given that, our comments specific to the San Juan Archipelago are as follows:

- Hunting recreation currently occurs on several BLM parcels within the San Juan Archipelago including on the Point Colville and Iceberg Point parcels. Lands that are currently open to hunting should remain open. Additional hunting opportunities may be available where the activity is compatible with other public uses and with resource conservation.

- Multiple use and resource protection issues will be important for numerous species on the San Juan's but specifically for black oystercatchers and peregrine falcons. Oystercatchers are vulnerable to disturbance while nesting and it may be necessary to limit overnight camping and work on other ways of protecting nesting sites. BLM lands currently contain three peregrine falcon eyries and WDFW and BLM should coordinate on how requests to take falcons by falconers will be handled.

- Conifer encroachment is degrading island habitat at Iceberg Point and other parcels and we encourage aggressive management to maintain remnant grasslands and balds. These habitats are critical for several species of rare plants and butterflies which used to occur on these areas. The WDFW also recommends that monitoring for the Shaw Island vole be a priority.

Scoping comments regarding lands in Eastern Washington include the following:

- WDFW was pleased to see that shrub-steppe habitat management and protection was identified as a key preliminary issue by BLM and we look forward to engaging with you as we seek partnership opportunities to protect this unique and diminishing habitat (e.g., easements, acquisition).

- We are also pleased that your preliminary planning criteria include the use of BLM's Rangeland Health Standards and Guidelines for both Oregon and Washington. We need to coordinate on how our agencies are assessing grazing activity in shrub-steppe habitats and how we are monitoring grazing activity and grazing plan compliance.

- Eastern Washington provides habitat for elk and mule deer and as you are likely aware, the BLM was one of several federal agencies that signed a Memorandum of Understanding related to the North American Mule Deer Conservation Plan. Our agencies need to continue to coordinate on ungulate management activities on public land.

- Washington BLM lands support more ferruginous hawk occupied territories than any other public land management agency (i.e., historic and current). As a consequence, BLM's land management decisions have important ramifications for this imperiled state threatened species.

- The Juniper Forest and Horse Heaven Hills management units both have several ferruginous hawk territories. Juniper Forest historically supported thirty territories and Horse Heaven Hills historically supported ten, but recent surveys reveal a precipitous decline at both sites and at the statewide level, 2010 spring surveys indicated only 35 territories in total were occupied. Several factors are likely responsible for the decline including a shrinking prey base and excessive human disturbance.

- WDFW has serious concerns for the level of human disturbance occurring at Juniper Forest. Specifically, off highway vehicle (OHV) use in the Area of Critical Environmental Concern (ACEC). OHV enthusiasts do not remain within the designated open use areas and are expanding their area of disturbance within the ACEC. Two negative impacts are occurring as a result. Nesting hawks are disrupted by vehicles during breeding and nest initiation (i.e., they are prevented from starting a nest) or during egg laying and incubation (i.e., they have started their nest and are prevented from finishing). OHV use immediately adjacent to traditional nest trees is a common observation.

- OHV use is also responsible for whole plant communities being converted from native bunchgrass and shrubs to invasive weeds. Prey species abundance and diversity is reduced when weeds invade native plant communities. Other areas are being denuded of all vegetation due to mechanical disturbance from OHVs and from wildfires that are occurring too frequently.

- Current management and enforcement of the ACEC at Juniper Forest is not in accordance with the original vision for the area. We urge BLM to manage the ACEC to protect ferruginous hawk territories from disturbance and prevent prey species habitat degradation due to OHV use and too frequent wildfire. We also recommend realigning the boundaries between the Open Use area and the ACEC to incorporate nest territories. On the ground markers are needed so that users can see where OHV use is permitted and where it is restricted. Current fencing and signs are inadequate to expect OHV users to comply with BLM regulations.

- BLM has identified energy development facilitation as a preliminary issue and while you acknowledge that it must be compatible with resource protection WDFW is concerned that wind development in eastern Washington is impinging ferruginous hawk territories. Wind turbines may cause abandonment of territories and may lead to direct mortality due to collisions with turbines. Recently we learned of a potential wind farm in the Horse Heaven Hills area. The proposed footprint of the farm includes two known active sites and several historical sites. We want to emphasize the importance of protecting currently active sites as well as sites that are known to have had historically active nest territories. Ferruginous hawks will often reoccupy a territory after several years of inactivity. We urge BLM to work with WDFW staff to determine appropriate setback distances for turbines from known ferruginous hawk territories supported by BLM land. This includes specific nest sites and surrounding foraging territories.

Thank you for the opportunity to provide these comments. As indicated in the opening, WDFW is excited to be able to participate with BLM in this important planning activity as a cooperating agency and we are awaiting additional information on how we will engage.

Sincerely,

Steve Pozzanghera, Regional Director
WDFW's Eastern Region (Region 1)

cc: Phil Anderson
Bob Everitt
Jeff Tayer
Dennis Beich

Eastern Washington

Counties
and
Local Governments

BENTON COUNTY PARK BOARD

Skip Gest • Marilyn Hyde • Kathye Kilgore • Richard Kilgore • Bert Lake
Donna Raines • Henry Sauer • Glynn Wheeler, Member Emeritus

7122 West Okanogan Place
Kennewick, Washington 99336

RECEIVED
APR 02 2010
Bureau of Land Mgmt.
Spokane District

08 December 2009

June Hues, Area Field Manager
US Bureau of Land Management – Spokane District Office
1103 North Fancher
Spokane, Washington 99212-1275

Re: Horse Heaven Rim Trail

Dear Ms. Hues,

The Park Board is aware that your office will begin a resource management planning process for BLM's Washington state lands in 2010, and we would like to bring an item to your attention that has been talked about conceptually in our area for some time.

As part of the scoping for your planning process, we would like to introduce the concept of the "Horse Heaven Rim Trail" (HHRT) into the record. The vision for the HHRT that has been developing in our community is for a linear, soft-surface, multiple use trail; extending from roughly Webber Canyon in the east, westward along the crest of the Horse Heaven Hills to some point in the west, hopefully in the vicinity of Prosser. The trail could ultimately be anywhere from 15 to over 40 miles depending on what is ultimately designated.

What Exists Now…
A major portion of the potential trail corridor is on BLM land on the crest and north face of the Horse Heaven Hills, within a management unit we understand is called "Badger Slope", or something similar. Most of the trail already exists in a de facto state, as people have used this corridor as a trail and road for a long time. A contiguous BLM land holding extends for many miles from Webber Canyon to a point between Chandler Butte and Prosser. Also, BLM has already authorized a small trail in this area that is maintained and has a dedicated parking area. The unnamed trail begins at a small trailhead along McBee Road south of Benton City (see photos), and climbs the face of the Horse Heaven Hills to a point on the crest that would intersect the proposed HHRT. Therefore, the idea of a designated trail in this area is not new.

What We are Seeking…
We would like to see the ridgeline trail formally authorized and designated. Because, as mentioned, the trail mostly exists already, we would foresee few needs for improvements. Most such improvements could probably be made through partnerships with local volunteer groups. The most substantial improvements would probably be a trailhead (some parking) on the east end, and some basic signage. At a minimum, we would like to see commitment to a "phase one" of the HHRT for the section between Webber Canyon Road and McBee Road. From there, we could see how westward expansions can be phased in over time.

Recreation groups, economic development organizations, and conservation advocates have been supportive of the HHRT concept in early, informal discussions. The Rim Trail is also noted as a community-wide parks goal in Benton County's *Comprehensive Parks Plan* that was completed in August 2008.

We have attached some photos and a basic map to illustrate the setting of the trail and where it would be located.

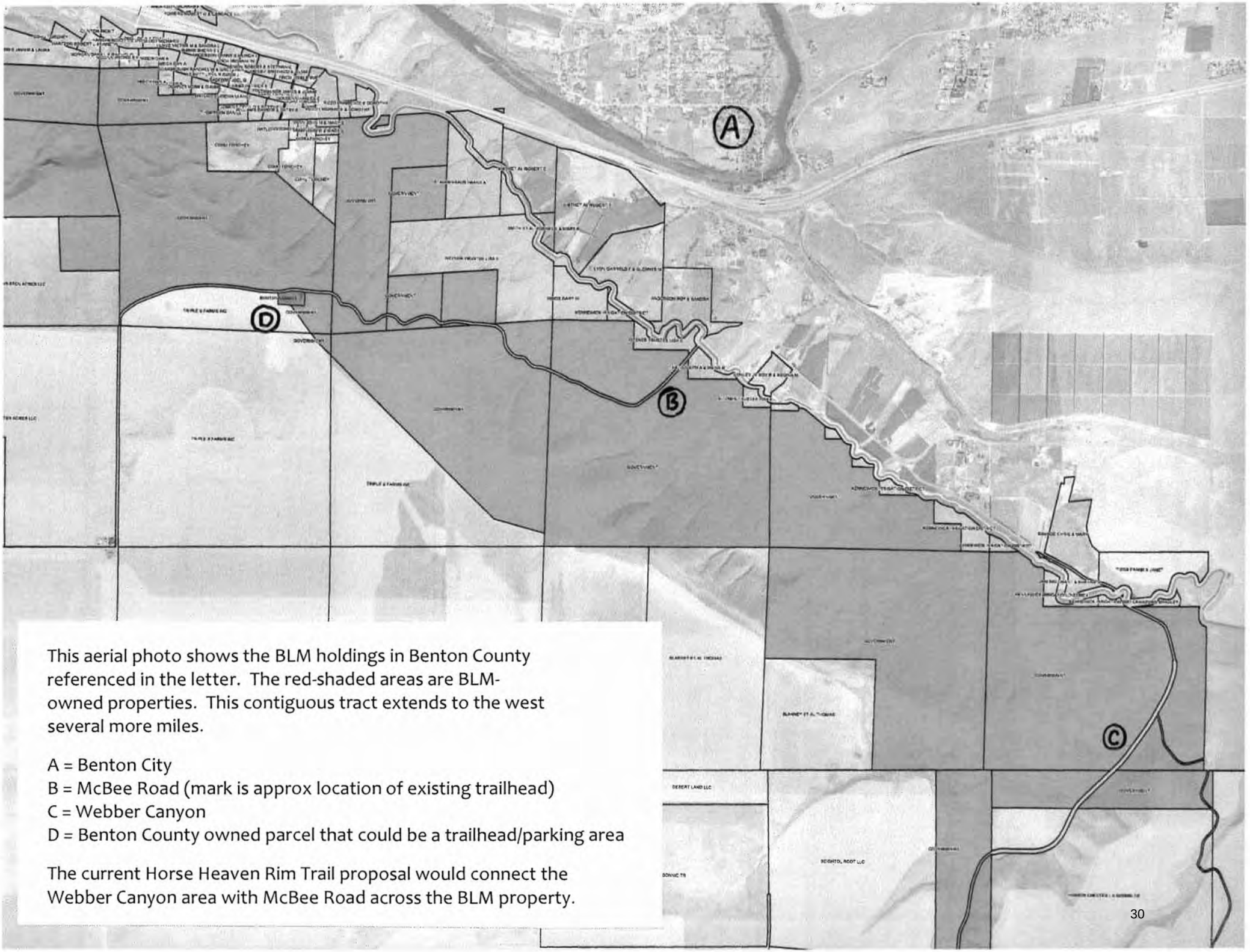
Thank you for your continued stewardship of our public lands. The Park Board enjoys working with your office on our shared goals in recreation and conservation.

Sincerely,

Bert Lake

Bert Lake, Chair

cc: Benton County Board of Commissioners
Backcountry Horsemen – Purple Sage Riders
Backcountry Horsemen – Rattlesnake Ridge Riders
Backcountry Horsemen – Wine Country Riders
Benton City Economic Development Committee
Chinook Cycling Club
Friends of Badger Mountain
Inter-Mountain Alpine Club
Prosser Economic Development Association
Ridges to Rivers Open Space Network of the Mid-Columbia
Tapteal Greenway Association
Tri-City Bicycle Club



This aerial photo shows the BLM holdings in Benton County referenced in the letter. The red-shaded areas are BLM-owned properties. This contiguous tract extends to the west several more miles.

A = Benton City
B = McBee Road (mark is approx location of existing trailhead)
C = Webber Canyon
D = Benton County owned parcel that could be a trailhead/parking area

The current Horse Heaven Rim Trail proposal would connect the Webber Canyon area with McBee Road across the BLM property.

This is the existing trailhead along McBee Road. It is well used. There is a small parking area and official BLM signage. We are not sure who maintains these minor improvements, but the existence of the trail does demonstrate BLM's recognition of the value of this property for passive recreational trail use. We are seeking this same level of recognition and improvements for the Horse Heaven Rim Trail.

While the photograph is not very good, the view is of the north face of the Horse Heaven Hills, looking from Interstate 82 near Red Mountain toward the Kiona/McBee area. You can faintly see a road traversing the face from left to right – this is McBee Road. The trail shown in the previous photo is located on the left side of this photo, though not visible here. The trail begins along McBee Road near the bottom and climbs to the crest, where it would intersect with the Horse Heaven Rim Trail, which itself would run the length of the ridgeline as seen in this photo, and well beyond in both directions.

This view is a sample of what is seen and experienced atop the Rim. This view looks east along the ridge. If you look to the north, you look down into the lush Yakima Valley with its farms, towns, and the river. In contrast, if you turn and look to the south you view the vast expanse of the Horse Heaven wheat country.

Actualization of the Horse Heaven Rim Trail would require very little in the way of trail "building". As you can see, a well-worn path already exists. Some minor work would be needed at the terminal access points, and this could probably be coordinated and completed by local volunteers such as the horseman and hiking groups. The Board is merely asking the BLM to formally recognized the trail and to work with these local groups to make real the minor improvements that would be needed.

OKANOGAN COUNTY NOXIOUS WEED CONTROL BOARD

149 3rd N. Rm. 102, PO Box 791, Okanogan, WA 98840

Email noxiousweeds@co.okanogan.wa.us
www.okanogancounty.org/nw
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509-422-7168

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509-422-7167

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509-997-2700

AREA # 4
Vicki Davis
271 Fish Lake Rd.
Tonasket, WA 98855
509-486-2714

AREA #5
Jan Asmussen, Chairperson
POB 417
Tonasket, WA 98855
509-486-2138

To: BLM
Date: May 20, 2010
Subject: Resource Management Plan

BLM land uses vary, but non-native noxious weed infestations influence each of these uses. Whether the use is mining, grazing, wildlife habitat, recreation, or a variety of other uses, noxious weeds play a detrimental role to the management and conservation of BLM lands.

The Okanogan County Noxious Weed Control Board encourages a long-term weed control plan, using integrated control methods, be included in the Resource Management Plan.

The long-term plan must include and permit all components of integrated weed management. Re-vegetation, herbicides application, bio-controls, hand pulling and grazing are major components of integrated weed management, but prevention of infestations must be recognized as well. Herbicides are continuously being modified and improved, there for selections must not be limited to only products that are currently available. Soil disturbance and existing weed infestations should be minimized throughout the duration of the plan.

We encourage a long-term control plan that will allow for adaptability regarding the invasive species and the control method. Sites vary and control plans implemented for each site must be adaptable allowing for flexibility of the program to benefit the public lands.

Thank you for this opportunity to comment on the BLM Resource Management Plan. Please contact our office if you have any questions or comments.

Anna Lyon,
OCNWCB Manager

June 15, 2010

RECEIVED

JUN 23 2010

Bureau of Land Mgmt.
Spokane District

BLM Spokane District – ATTN: RMP
1103 N. Fancher Road
Spokane Valley, WA 99212

LINCOLN COUNTY CONSERVATION DISTRICT CONDUCTING STUDY FOR FEASIBILITY OF LINCOLN COUNTY PASSIVE REHYDRATION

The Lincoln County Conservation District (LCCD) was recently funded by the Washington Department of Ecology – Columbia River Initiative to assess the physical feasibility of recharging basalt aquifers via infiltration from selected streams and lakes in central and northern Lincoln County. The first phase of the project, the prefeasibility assessment, is currently underway and will be completed late in 2010. A subsequent more detailed feasibility assessment currently is planned for 2011. The objective of this scoping comment is to briefly inform BLM staff about this project, commonly referred to as the Passive Rehydration Project.

LCCD's Passive Rehydration Project, with support from the Columbia Basin Groundwater Management Area (GWMA), the WRIA 43 Water Resource Management Group, the Columbia Basin Development League, and the Lincoln, Grant, Franklin and Adams County Commissioners, is studying the feasibility of conveying available Lake Roosevelt water into the streams and lakes of northern Lincoln County. If this project is built it will see:

1. Formerly flowing, but currently dry, stream beds reoccupied by flowing streams.
2. Wetland areas restored.
3. Refilling of the many dry lakes currently seen in the area.

In conjunction with this, groundwater recharge will be occurring, and this will support base flow to downstream areas as well as rehydrate aquifers depleted by a combination of loss of recharge and withdrawals by pumping.

Successful implementation of the Rehydration Project will: (1) mitigate for reduced stream flows in Crab Creek and its tributaries (such as Cannaiwai Creek, Marlin Hollow, Lake Creek, Duke Creek, and Coal Creek), (2) refill currently dry or depleted lakes (such as Bobs Lake, Pacific Lake, Neves Lake, Tavares Lake, Browns Lake, and Deer Lake to name a few), and (3) provide groundwater recharge to declining Columbia River basalt aquifers, specifically those in Lincoln County and within the Odessa Subarea. In addition, with this project LCCD will be looking at potential sites for the construction and operation of small scale hydro-electric power generation facilities in these drainages. The Passive Rehydration Project will identify the viability of one or more stream drainages to meet these goals. Water from these streams will then revitalize and refill dried up lakes and seep into the bedrock under natural conditions to recharge and replenish the water within the Columbia River Basalt aquifers, which are used by the majority of water users throughout the Odessa area.

This Passive Rehydration project has wide local support due to the known declining groundwater levels in the Odessa area, diminished stream flows, and the historical drying of lakes. The Project with its local support is searching for potential viable options to mitigate the impacts to groundwater and surface water while maintaining the local economy. If potential

passive rehydration sites can be identified, and programs implemented, many benefactors such as the ecosystem, the groundwater users, and economy will have a reestablished water supply.

LCCD has been holding, and will continue to hold open public meetings to inform the public of the goals, objectives, and progress of the Passive Rehydration project. In addition, one-on-one meetings have been, and will continue to be held with local landowners to get project buy-in along the selected water courses, and negotiate land access agreements for the Project. A land position survey will also be completed in order to develop the most preferred conveyance route alternatives for future engineered designs.

The BLM is an important landowner within several of the drainages that will be investigated for the Passive Rehydration Project, and LCCD wants the BLM to incorporate into its Resource Management Plan (RMP) actions and activities that facilitate and augment the Passive Rehydration Project. In general, the RMP should include actions defined in consultation with LCCD that enhance habitat conditions and infiltration into the underlying aquifer system. One example of such an action would be to ensure that flow control structures installed in specific drainages can be operated to allow the delivery of Passive Rehydration Project water to downstream areas targeted by LCCD for habitat benefits, surface water uses, and aquifer recharge. In the long term, BLM working with LCCD, should have an RMP in these drainages that allows for multiple uses, including: (1) healthy natural habitats, (2) viable and sustainable uses of the land and water that promote a healthy economic climate for Lincoln County, and (3) allow these streams to accomplish one of the things they did naturally in the past - provide a recharge source for groundwater found beneath Lincoln County. LCCD recommends that its interests in the Passive Rehydration Project be represented in BLM's process to ensure that this project and the RMP are compatible and complementary. It would be in neither of our interests to be managing water to cross purposes.

This Passive Rehydration Project was developed from the input of local residents involved in watershed planning and from the results of the regional groundwater mapping project conducted by the GWMA. The project will look at improvements to surface water and groundwater conditions in the region that will benefit all water users in the area. It would be in the BLM's interest to recognize this effort and include it within its RMP process.

For further information or questions, please contact David Lundgren, Lincoln County Conservation District, P.O. Box 46, Davenport, WA 99122 (509) 725-4181.

kvradenburg.city@entiat.org
07/08/2010 01:47 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form - Keith Vradenburg

Requestor: Keith Vradenburg
E-mail address: kvradenburg.city@entiat.org

Comments:
I am the Mayor of the City of Entiat in Chelan County, state of Washington. The City of Entiat is interesting in 11 acres of BLM property located on Highway 97A Mile Marker 213. The City of Entiat believes that this site is ideal for a waste transfer station. City staff has looked at several parcels of land that could possibly be a good site for a waste transfer station. This site has the best location and access for our City and the surrounding community.

If anyone has any questions that I could answer or if there any information needed, please contact me.

Keith Vradenburg, Mayor

phone; office 509 - 784 - 1500

address listed above.

Thnak you!!!

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Eastern Washington

Non-Governmental Organizations

JOHNIE PITMAN

05/15/2010 07:10 PM

To OR_Spokane_RMP@blm.gov

cc

bcc

Subject Eastern Washington Resource Management Plan

To whom it may concern:

Hello, I'm Johnie Pitman President of the Panorama Gem and Mineral Club, thank you for this opportunity to express concerns about the use of BLM lands in eastern Washington. At the present time we have 60 adult members and their families in our club and there are over 2000 members in the state of Washington that belong to the Northwest Federation of Mineralogical Societies, Inc. As a group we often go on field trips on private and public lands to collect gems, minerals, fossils, and rocks. Last year our club went on fifteen such outings and collected specimens for our personal collections. This is a great way to get outdoors and get some exercise and sun shine. In resent years there are more and more rules and regulations, closures and limited access to public lands for this type of recreation. For the most part we are not prospectors looking to stake claims or realize any form of profit from these activities.

We often go into our public schools at their invitation to talk about geology, fossils and the rocks that we have collected on public lands. Education is an important part of our organization and that includes taking care of our environment and respecting the land owners and others that will be using the public lands for other reasons. We encourage collecting limits and reasonable environmental regulations that will ensure recreation of all types for future generations.

I will not be available to attend any of the public open house meetings.

Respectfully, Johnie Pitman

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: Caribou Trail Trail Riders,

Addre[redacted]

City: [redacted]

Email Address: _____ Organization: _____

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

1) Dispersed non motorized recreation such as horseback riding and hunting is important to our organization. One specific example is access to Whistler Canyon (SE of Oroville, WA). There is currently no public access from US 97 to non motorized trails on USFS land.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

Email Address: N/A

Organization: Rattlesnake Ridge Riders Back Country Horsemen

Do you want your personal information withheld? ☒ YES ☐ NO

Preferred method of contact: ☐ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

(1) General Issue - access to BLM land ~~that~~ that is surrounded by private land.

(2) Specific - access to Juniper Dunes! It is my understanding that DeRuiter (dairy farm owner on Peterson Rd) was willing to do a land swap or otherwise work with BLM to solve the problem

(3) Specific - multiuse (no motorized vehicles) (bike-hike and horses) trail along the north rim of Horse Heaven Hills East end of Webber Canyon to Prosser

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

Email Address: [redacted] anization: Ridge To Rivers

Do you want your personal information withheld? ☐ YES ☑ NO

Preferred method of contact: ☑ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☑ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Local groups are prepared to help you manage your Recreational lands – Specifically open space and Trails – Ridge To Rivers Open Space Network of the Mid-Columbia (www.TAPTEAM.ORG) is a Regional Planning group developing a Regional open space Plan for Jurisdictions to use in their own planning.

We see our role as a PARTNER with BLM to help manage and develope Recreation and conservation in the Mid-Columbia Region.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

Email Address: [redacted] Organization: Ridges To Rivers Open Space Network WWW.TAPTRAL.ORG

Do you want your personal information withheld? ☐ YES ☑ NO

Preferred method of contact: ☑ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☑ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

SE Benton County - Wallula Gap is a National Natural Landmark and it is up for sale. Kennewick General Hospital is the owner and they are surplusing several parcels. Page 5-6 of these parcels are outstanding geological "gems" depicting the most significant flood event in history. The Ice Age Geological Flood Trail features W-Gap as the most spectacular and must be preserved.

A great opportunity for BLM to swap land to save this feature and make KGH whole - a wonderful resource that can be managed locally — 509-627-3621

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

06/12/2010 09:32 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form - Evelyn Cataldo

ra Drive

Comments:
I am the President of the Northwest Federation of Mineralogical Societies (NFMS). We are one of the seven Federations of the American Federation of Mineralogical Societies. The NFMS is composed of 71 gem and mineral clubs with over 5,200 members. Clubs within the NFMS represent the states of Washington, Oregon, Idaho, Montana, Alaska and the northern part of Utah. Thank you for allowing us to comment on the issues to be considered in the RMP.

We urges you to maintain and recognize rockhounding as a legitimate recreational pursuit on all BLM lands. Within Eastern Washington, there are several sites on BLM property that are actively used by rockhounding hobbyists. Rockhounding is a family activity that is enjoyed by many.

In particular concern, is the Saddle Mountain area. This is a well know location for petrified wood. Rockhounds have been using this site for many, many years. Of late, there have been issues between rockhounds and a private land owner. We urge you to resolve owenership issues on Saddle Mountain and provide clarity to the public on which areas are designated BLM property for rockhounding. We request that you plan to maintain and expand access for multi-use recreational users in the Saddle Mountain unit.

In closing, management of public lands by closure and unwarranted habitat designations is not acceptable. We encourage BLM to plan for continued and hopefully expanded rockhounding activities within the the RMP process.

Thank you for your consideration.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

[redacted]ization: Wash State Mineral Council Marysville Rock & Gem Club

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☒ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Our main concern is motorized access (keeping open) to areas like Saddle Mtn and old mines in Ferry & Steven Counties to amateur rock & mineral collectors. Much of our membership is over age 50 or under age 12 and motorized access has been crucial to allowing these members to enjoy this hobby to its fullest.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

PACIFIC NORTHWEST 4-WHEEL-DRIVE ASSOCIATION

OREGON — WASHINGTON — IDAHO

RECEIVED

JUN 21 2010

Bureau of Land Mgmt.
Spokane District

June 16, 2010

Bureau of Land Management
Spokane District
1103 North Fancher Road
Spokane Valley, Washington 99212

RE: Eastern Washington Resource Management Plan

To Whom It May Concern,

In my position as State Director and on behalf of the 2500 Washington members of the Pacific Northwest Four Wheel Drive Association (PNW4WDA) please except the following statements and requests on behalf of the Eastern Washington Resource Management Plan.

First, I would like to thank you for hosting the six open house meetings across the state it was a great opportunity for the public to discuss, identify and exchange information on issues pertaining to this revision plan.

Saddle Mountain Management Unit Area -

We are requesting the Bureau to continue to maintain all of the current accessible motorized routes for the diverse recreation opportunities found in the Saddle Mountain Management area.

Juniper Dunes Wilderness Area and Juniper Forest -

Reviewing your scoping analysis for preliminary issues and planning criteria I would hope the following request for the Juniper Dunes Wilderness Area and Juniper Forest would fall into one of those categories.

The issue at hand stems over a forty-eight year period of unfinished business. The Bureau of Land Management established the Juniper Dunes Wilderness in the early '60's located in Franklin County and northeast of Pasco, Richland, and Kennewick (Tri Cities) Washington. A portion was designated as Wilderness by Congress in 1984; with motorized opportunities designated in other parts of the Juniper Forest area. It has become a very popular motorized and non-motorized recreation area to where the local Visitor and Convention Bureau advertise it as, "Come see our Washington Sahara."

Legally this public land is landlocked from the motorized community. Past authorized access has been over a private roadway (Peterson Road); there have been several agreements between the Bureau and the landowner and for various reasons has been the broken, agreements reinstated just to be broken again; currently the legal access is posted with a no trespassing sign.

OHV use is a legitimate, sustainable use of appropriate public lands and is a healthy family activity which provides a great opportunity to experience the great outdoors. These are public lands but leaves the public and user groups facing gridlock, trespassing and another area legally off limits to the motorized recreation community.

The scoping process states, "the agency has acquired many thousands of areas since 1987; there is a need for management objectives - for multiple uses and resources; and to recognizing valid existing rights within the Planning Area."

I believe the Juniper Dunes recreation area needs to be finalized through acquiring access rights and resolving the legality issue.

I am requesting the Bureau to recognize this legal access issue important enough to recreation to be addressed through the current scoping process for the Eastern Washington Resource Management Plan.

I look forward to the process and the Bureau's final decision on this plan.

Sincerely,

Arlene Brooks

Arlene Brooks, Washington State Director
PNW4WDA
21520 SE 346th Street
Auburn, Washington 98092

COMMENTS ON RMP FOR EASTERN WASHINGTON BLM LANDS

June 21, 2010

Mr. Robert Towne
District Manager
BLM Spokane District Office
1103 N. Fancher Rd.
Spokane, WA 99212

Dear Mr. Towne:

The organizations listed below serve on the Federal Lands Hunting and Shooting Sports Roundtable. The Roundtable was created by a memorandum of understanding (BLM MOU No. 250-2007-03 and IM 2007-41) signed by the BLM, the Fish and Wildlife Service, the Forest Service and 40 national hunting, fishing, shooting sports, and wildlife conservation organizations. We represent the interests of millions of hunters and other wildlife conservationists who commonly recreate on our nation's Federal lands and who use those lands for recreational shooting.

We appreciate the opportunity to comment during the scoping process to revise the Eastern Washington Resource Management Plan (RMP) and to prepare an initial plan for the San Juan Archipelago. Our comments are directed to the Eastern Washington portion of the RMP effort with specific focus on recreational shooting. To put interest in recreational shooting into perspective, a study conducted in 2009 by Responsive Management for the National Shooting Sports Foundation estimated a total participation in the shooting sports of more than 34.4 million people nationwide. Of that number, 7.5 million live in the Western states.

Our work on the Roundtable, including its predecessor the Public Lands Shooting Sports Roundtable, has made it very clear that unlike all other activities on Federal lands, recreational shooting has been largely "out of sight, out of mind." The continued growth in population around BLM lands, coupled with expanding recreational use, makes that philosophy a threat to the present and future access to Federal lands for recreational shooting.

When conflicts arise, the invariable management response is closure, with little regard for the displaced shooters. Rarely is there a plan developed to find a suitable alternative site. Instead, shooters are expected to shoot elsewhere on Federal lands until such time as conflicts and other issues arise on those lands. In this way, the creeping land closures continue.

Places to enjoy recreational shooting are becoming increasingly limited as private lands are closed to that use or are developed. This applies even greater pressure on Federal lands to provide access. Competition for public lands for a variety of uses also has the effect of taking

public lands out of consideration for more intensive recreational shooting. If areas for more intensive recreational shooting were identified in the planning process, other uses could be planned to avoid conflicts and closures (e.g. fences, trails, roads, range and wildlife improvements, rights of way, etc.).

We recognize the RMP process as the principal tool for the BLM to address resource use and allocation. We believe it important to state our position with respect to recreational shooting and land use planning and land use allocations and restrictions. We ask that the views stated below be a consideration in the Eastern Washington RMP scoping process and throughout the entire RMP revision.

1. Recreational shooting of all kinds is recognized by the BLM to be a legitimate form of recreation and an appropriate use of the National System of Public Lands managed by the BLM.

2. Recreational shooting should be considered an appropriate and accepted use of the public lands in the area and should be given equal consideration with other legitimate land use activities or projects that are evaluated within the context of land use planning.

3. Recreational shooting is a recognized sport, in and of itself, and is often a means of education and practice for hunters and potential hunters to improve their marksmanship and other hunting skills. Access to recreational shooting opportunities makes for better trained, more accurate, and increasingly safety-conscious hunters, who enjoy recreational opportunities on public and private lands.

4. The BLM Land Use Planning Process should identify public land areas where dispersed recreational shooting can continue, along with sites and ranges for current and/or future more concentrated recreational shooting activities.

5. Recreational shooting on public lands should be restricted or prohibited by land management decisions only in public land areas where dangers to public safety exist or where restrictions or prohibitions on recreational shooting are needed to prevent damage to valuable resources.

6. The BLM's planning for restrictions or closures to recreational shooting should consider options for mitigating the loss of areas that have been available for recreational shooting.

We believe that the BLM in Oregon/Washington has the ability to analyze land and resource information in the planning area for its use for recreational shooting. It is particularly important to identify land areas that are better suited for more intensive shooting, regardless of whether these areas would be used informally or potentially used as managed shooting ranges. If expertise is needed for detailed analysis of a site(s), that could be arranged through one of the referenced MOU partners. The point of contact for the Roundtable is the Chair, Susan Recce, at 703-267-1541 or srecce@nrahq.org.

Thank you for the opportunity to comment.

Archery Trade Association
Bowhunting Preservation Alliance
National Rifle Association
National Shooting Sports Foundation
Pope & Young Club
Public Lands Foundation
Safari Club International

06/21/2010 05:19 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form - Steve Shoemaker

E-mail address: steve.shoemaker@pnl.gov

Requestor Street Address:

di ive

Comments:
I am the President of the Lakeside Gem and Mineral Club of Kennewick Washington. Our club has about 300 members of all ages. The club members have enjoyed use of BLM land for a long time and want to mke sure the current planning continues to protect our iinterest and access to these resources.

1. Maintain and expand access fro multi-use recreational users in Saddle Mnt. unit and resolve ownership issues for public clarity.

2. Maintain and recognize rockhounding as a legitamate recreational pursuit on all state BLM landss.

3. Management of Public lands by closure or unwarrented habitat designation is not acceptable.

Please allow our members to continue to share the freedom and enjoyment we have found in rockhounding on BLM lands.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Molly Reid
<MReid@gsiws.com>
06/22/2010 04:00 PM

To "OR_Spokane_RMP@blm.gov" <OR_Spokane_RMP@blm.gov>
cc Kevin Lindsey <KLindsey@gsiws.com>, David Lundgren <dlundgren@wadistrict.net>
bcc
Subject Comments from Lincoln County Rehydro Project concerning BLM's RMP

June 15, 2010

BLM Spokane District – ATTN: RMP
1103 N. Fancher Road
Spokane Valley, WA 99212

LINCOLN COUNTY CONSERVATION DISTRICT CONDUCTING STUDY FOR FEASIBILITY OF LINCOLN COUNTY PASSIVE REHYDRATION

The Lincoln County Conservation District (LCCD) was recently funded by the Washington Department of Ecology – Columbia River Initiative to assess the physical feasibility of recharging basalt aquifers via infiltration from selected streams and lakes in central and northern Lincoln County. The first phase of the project, the prefeasibility assessment, is currently underway and will be completed late in 2010. A subsequent more detailed feasibility assessment currently is planned for 2011. The objective of this scoping comment is to briefly inform BLM staff about this project, commonly referred to as the Passive Rehydration Project.

LCCD's Passive Rehydration Project, with support from the Columbia Basin Groundwater Management Area (GWMA), the WRIA 43 Water Resource Management Group, the Columbia Basin Development League, and the Lincoln, Grant, Franklin and Adams County Commissioners, is studying the feasibility of conveying available Lake Roosevelt water into the streams and lakes of northern Lincoln County. If this project is built it will see:

1. Formerly flowing, but currently dry, stream beds reoccupied by flowing streams.
2. Wetland areas restored.
3. Refilling of the many dry lakes currently seen in the area.

In conjunction with this, groundwater recharge will be occurring, and this will support base flow to downstream areas as well as rehydrate aquifers depleted by a combination of loss of recharge and withdrawals by pumping.

Successful implementation of the Rehydration Project will: (1) mitigate for reduced stream flows in Crab Creek and its tributaries (such as Cannaiwai Creek, Marlin Hollow, Lake Creek, Duke Creek, and Coal Creek), (2) refill currently dry or depleted lakes (such as Bobs Lake, Pacific Lake, Neves Lake, Tavares Lake, Browns Lake, and Deer Lake to name a few), and (3) provide groundwater recharge to declining Columbia River basalt aquifers, specifically those in Lincoln County and within the Odessa Subarea. In addition, with this project LCCD will be looking at potential sites for the construction and operation of small scale hydro-electric power generation facilities in these drainages. The Passive Rehydration Project

will identify the viability of one or more stream drainages to meet these goals. Water from these streams will then revitalize and refill dried up lakes and seep into the bedrock under natural conditions to recharge and replenish the water within the Columbia River Basalt aquifers, which are used by the majority of water users throughout the Odessa area.

This Passive Rehydration project has wide local support due to the known declining groundwater levels in the Odessa area, diminished stream flows, and the historical drying of lakes. The Project with its local support is searching for potential viable options to mitigate the impacts to groundwater and surface water while maintaining the local economy. If potential passive rehydration sites can be identified, and programs implemented, many benefactors such as the ecosystem, the groundwater users, and economy will have a reestablished water supply.

LCCD has been holding, and will continue to hold open public meetings to inform the public of the goals, objectives, and progress of the Passive Rehydration project. In addition, one-on-one meetings have been, and will continue to be held with local landowners to get project buy-in along the selected water courses, and negotiate land access agreements for the Project. A land position survey will also be completed in order to develop the most preferred conveyance route alternatives for future engineered designs.

The BLM is an important landowner within several of the drainages that will be investigated for the Passive Rehydration Project, and LCCD wants the BLM to incorporate into its Resource Management Plan (RMP) actions and activities that facilitate and augment the Passive Rehydration Project. In general, the RMP should include actions defined in consultation with LCCD that enhance habitat conditions and infiltration into the underlying aquifer system. One example of such an action would be to ensure that flow control structures installed in specific drainages can be operated to allow the delivery of Passive Rehydration Project water to downstream areas targeted by LCCD for habitat benefits, surface water uses, and aquifer recharge. In the long term, BLM working with LCCD, should have an RMP in these drainages that allows for multiple uses, including: (1) healthy natural habitats, (2) viable and sustainable uses of the land and water that promote a healthy economic climate for Lincoln County, and (3) allow these streams to accomplish one of the things they did naturally in the past - provide a recharge source for groundwater found beneath Lincoln County. LCCD recommends that its interests in the Passive Rehydration Project be represented in BLM's process to ensure that this project and the RMP are compatible and complementary. It would be in neither of our interests to be managing water to cross purposes.

This Passive Rehydration Project was developed from the input of local residents involved in watershed planning and from the results of the regional groundwater mapping project conducted by the GWMA. The project will look at improvements to surface water and groundwater conditions in the region that will benefit all water users in the area. It would be in the BLM's interest to recognize this effort and include it within its RMP process.

For further information or questions, please contact David Lundgren, Lincoln County Conservation District, P.O. Box 46, Davenport, WA 99122 (509) 725-4181.

Molly Reid
Water Resource Analyst

GSI Water Solutions, Inc.
1020 N. Center Parkway, Suite F
Kennewick, WA 99336

Phone: (509) 735-7135
Fax: (509) 735-7067
Cell: (541) 310-8800
Email: mreid@gsiws.com

06/11/2010 02:15 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form - Mike Denny

E-mail address: me.denny@my180.net

Requestor Street Address:

Comments:
Hello,

My primary concern is over the Juniper Dune Wilderness Area in Franklin Co.. As you know this is a very unique habitat type here in the Columbia Basin. I strongly urge you to STOP all ORV/ATV use of the entire area. If folks want to go and rip around on ATVs there are many other sites that have already been destroyed by these folks. Please consider the fact that this is a wilderness area and that it is not replaceable nor can you really mitigate for its destruction. So I am asking that this ENTIRE wilderness area be closed to ATVs and that the BLM actually enforce it.

Thank-you for this opportunity to comment.

Mike Denny

Vice President

Blue Mountain Audubon Society

Walla Walla, WA

Preferred method of contact is email.
Preferred RMP/EIS format is CD.

06/24/2010 10:27 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form - Earl .Nettnin

E-mail address: esnettnin@aol.com

Requestor Street Address:

Comments:
This letter is in response to requested comments for the BLM revision of the resource Management Plan that was discussed at the scoping meetings.

Areas of concern are the Saddle Mountain Management Unit area, the Juniper Dunes Wilderness area and Juniper Forest.

I feel the Saddle Mountain Management Unit area should continue to have motorized access for all types of recreational activities that are found in that area.

On the issue concerning the Juniper Dunes Wilderness area and Juniper Forest there is no legal access to these areas. The only way in is by a private road which some of the land owners feel they must block it off at times and post No Trespassing signs. This is a very popular recreational area and legal access should be established to eleminate land owner hassels.

Thank you for considering these comments for the revision in the BLM Resource Management Plan.

Please add my name to the mailing list.

Earl P. Nettnin, Region 4 Director

Pacific Northwest 4-Wheel Drive Association

519 North Fisher Place

Kennewick, WA 99336

06/25/2010 06:35 AM

To OR_Spokane_RMP@blm.gov
cc
bcc
Subject Land Use

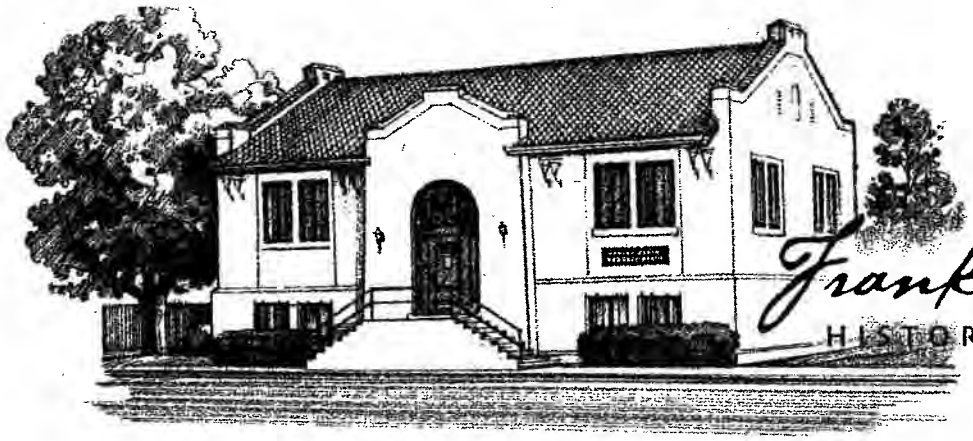
I am a member of the Marysville Rock & Gem Club. (122 members strong and growing) As rockhounds we enjoy going on field trips to outdoor sites to gather rocks and/or minerals.

Finding places to gather rocks and minerals on public land in the state of Washington has become very difficult however due to land and road closures on the public lands. Some rockhounds are challenged by health and mobility issues. Not being able to hike they are hurt the most by these road closures

As the BLM formulates plans to manage its land resources into the future, I strongly encourage you to take into account the interests of the rockhound hobbyist. Please keep open those roads currently accessing areas of interest like Saddle Mountain and the abandoned mines in Ferry and Stevens Counties.

Thank you for your time and consideration,

Bill Moser - President - MRGC



Franklin County
HISTORICAL SOCIETY
305 NORTH FOURTH * PASCO, WA 99301-5324
(509) 547-3714 * FAX (509) 545-2168
Museum@FranklinCountyHistoricalSociety.org

June 24, 2010

Scott Plavey, Planner; Robert Towne, Dist. Mgr.; Sally Sovery, Assc. Dist. Mgr.
BLM Spokane District
1103 N. Fancher Road
Spokane, WA 99212

RECEIVED
JUN 25 2010
Bureau of Land Mgmt.
Spokane District

Dear Friends,

Our organization's existence is found in our mission statement, which states, "The Franklin County Historical Society shall preserve and promote the history of Franklin County through educational programs, publications and the operation of the Franklin County Historical Museum."

On behalf of the Board of Trustees and Society members, this letter will act as our organization's formal response and request to the BLM/ Spokane District's solicitation for public input pertaining to land use issues associated with the proposed Resource Management Plan and subsequent environment issue statements.

We note with interest from a historical preservation perspective that BLM multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. Specifically speaking the Juniper Dunes/Forest located in Franklin County is used for multi-recreational purposes by a wide variety of recreational users outside as well as inside our state and community, yet is plagued by a lack of public access.

We respectfully request that the Spokane District prioritize as a specific objective the acquisition of public access to these public lands and execute their longstanding contingency plans for this Juniper Forest Recreational and wilderness area.

Respectfully submitted,

Sherel Webb

Sherel Webb, Administrator
Franklin County Historical Society

cc: FCHS Board of Trustees
Senator Patty Murray
Senator Maria Cantwell
Representative Doc Hastings

06/25/2010 11:55 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form - Bryan Tallman

ud

Comments:
I am increasingly concerned that areas to rockhound are becoming increasinly hard to get to either because of road conditions or closure to the public. Please try to ensure that the roads to these locations are maintained for reasonable access. Thank you...

Bryan Tallman

Presisent, Shelton Rock and Mineral Society

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Comments regarding issue statements—Ea. Washington and San Juans RMP

Cowiche Canyon Conservancy

July 9, 2010

The issues as developed to date and presented for public comment generally represent the broad suite of resource management themes facing Washington and Oregon public land managers in 2010. Since the impact of changing climate on the major habitats in both eastern Washington and the San Juans is not mentioned in the scope, I presume that the time horizon for the RMP is limited, and that climate adaptation strategies will not be included in alternatives? Otherwise, as the current Executive Director of the Cowiche Canyon Conservancy in central Washington, and former Eastern Washington Forests Director for The Nature Conservancy, I work with these issues as presented both as a direct land manager, and as an adjoining landowner/ partner with BLM. With the exception of changing climate, I believe you have captured the key content for eastern Washington land management issue development. I would like to offer some further suggestions for framing and amplifying the issues in such a way that planning exercises might follow a clear logic framework for developing and evaluating alternative management strategies. As a general comment regarding the criteria sideboards, you have most likely answered most of your issues as they are currently framed. When framing the issues as the open-ended questions of "how will shrub-steppe/adjacent lands/new lands/energy permitting…be managed", you will most likely be able to find an "answer" within the myriad plans, acts, guidance protocols, and other public entity overlays cited in the sideboards, thus diminishing the need for resource management planning beyond researching all extant laws, regulations, and local jurisdictional ordinances. The following suggestions may help refine what lies outside the sideboards, and lead more directly from issues to the development of action-driven strategies:

Issue 1): Revised issue statement: Regardless of current ownership, what are the most representative eastern Washington species, communities, ecosystems, ecosystem processes, and land uses, and what specific roles, if any, will the BLM play in their persistence through time?

> Rationale: The intent here is to start with the most important elements of BLM's resource management mandate including both natural and cultural history, and come up with a preferred alternative that has been probed by considering what opportunities exist for BLM to act either on its own lands, or by cooperative agreements elsewhere.

Issue 2) Revised issue statement: Given the current ownership pattern with many areas of interspersed ownerships, limited resources and long time horizons for real estate exchanges and other transactions, what criteria will BLM use to define the gradient from the most to the least pressing adjoining land use conflicts, and what suite of actions will be proposed to resolve them?

> Rationale: There are good models for defining some clear and user-friendly criteria for determining "how much is enough" for buffering desired protected areas for habitat or for other land use activities. Rather than using an open-ended, conflict-based approach to land configuration, this issue can be re-framed to deliver specific objectives that will assess contiguity from several perspectives, rather than one perspective.

Issue 3) Revised issue statement: With the significant changes that have occurred to the land base and resource management practices since the last RMP was written, how should BLM prioritize deployment of its limited staff resources during the interim period until the new RMP is adopted? What organizations are already working in partnership with BLM or are poised to do so, and how can these cooperative efforts be legitimized given conflicting values over land use both inside and external to the BLM? How can the next RMP be made more elastic to rapidly changing conditions in the future?

> Rationale: The true intent of this issue is not exactly clear—it appears to express the uncertainty of working outside the parameters of the old plan because of all the changes that have occurred since 1987, but won't those changes be incorporated into this current planning cycle?

Issue 4): Revised issue statement: When permitting energy facilities, mineral extractions and transmission lines under its authorities, the BLM can institute sound permit conditions and adopt existing regional mitigation protocols. Given the need for energy, and the clear threat energy development imposes on the very systems BLM will work to protect, what outside resources and expertise should BLM draw upon to guide what may be the most conflicted and controversial issue for the next RMP cycle? How can development and conservation strategies be considered together in order to avoid an irrevocable inconsistency among the strategies?

> Rationale: Short of a global paradigm shift toward real conservation of energy resources, demand for new sources of energy will continue, and the resource-rich lands of eastern Washington, and the non-urbanized areas of the western United States in general will experience increasing pressure to convert portions of the landscape to energy production and transmission. The text supporting the issue statement as presented for comment implies there is an "if" statement pertaining to the BLM's engagement in land uses that permit energy development. It is important to state the issue in such a way as to eliminate any doubt about BLM's future role in some form of energy development—even if to just include management of existing power lines and subsurface minerals. Selection of the final preferred alternative management scenario will likely have a mix of conservation and development strategies, including some energy development and transmission.

Clipper Windpower Development Company, Inc.
6305 Carpinteria Ave., Suite 300
Carpinteria, CA 93013
Tel: +1 (805) 690 3275
Fax: +1 (805) 899 1115
Web: www.clipperwind.com

9 July, 2010

Scott Pavey
BLM Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

RE: RMP REVISION – EASTERN WASHINGTON AND SAN JUAN

Dear Mr. Pavey,

This letter is in response to the Spokane BLM office's invitation to provide comments on its Spokane Resource Management Plan (RMP) which is currently undergoing revisions. Clipper Windpower Development Company, Inc. ("Clipper") has been developing BLM land for wind energy purposes in the Spokane District since 2007. We appreciate the opportunity to provide these comments.

We understand that the BLM is considering the reclassification of some or all of its visual resource management areas. We further understand that the BLM may designate certain areas within its district as renewable energy zones, and Clipper's project area in Benton County, Washington may be considered for inclusion in such a renewable energy zone. Clipper enthusiastically supports this idea. Alternatively, Clipper respectfully requests a reconsideration of the current VRM Class II designation for its project area in the event it is not established as a renewable energy zone.

We appreciate the federal government's support for and prioritization of renewable energy development on public lands as expressed in Section 211 of the Energy Policy Act of 2005 and Secretary Salazar's Secretarial Order 3285. Clipper remains committed to developing clean, renewable energy in Western states, which often calls for the inclusion of BLM land. We appreciate efforts by the Spokane BLM office and other agencies in promoting responsible yet reasonable policies for wind development on its lands.

Thank you for accepting these comments.

Sincerely,

Krista Jo Gordon
Region Development Manager – West
Clipper Windpower Development Company, Inc.
1350 17th Street, Suite 200
Denver, CO 80202
Tel: (303) 951-6959
Cell: (805) 679-1986
Email: kgordon@clipperwind.com

July 12, 2010

Sent via email and U.S. Mail

Scott Pavey
BLM Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

Dear Mr. Pavey,

We appreciate the opportunity to provide suggestions and comments that might help in framing the range of alternatives for the Eastern Washington and San Juan Planning Area. The Wilderness Society's (TWS) mission is to protect wilderness and inspire Americans to care for our wild places. TWS represents more than half a million members and supporters nationwide and our staff and members have great interest in the protection and enhancement of wild lands throughout the planning area.

I. THE LEGAL FRAMEWORK FOR ADDRESSING CLIMATE CHANGE IN LAND USE PLANS

BLM has a legal duty to address the impacts of climate change both from land management actions and to the resource area in this plan revision. There is a global scientific consensus that human-induced climate change is currently altering the landscape and ecological functions at an unprecedented rate. According to the U.S. Climate Change Science Program, the Northwest landscape could be greatly transformed due to drought, wildfire, invasive species, and rising temperatures.[1] BLM is obligated to analyze impacts of global climate change in this management plan revision.

The Eastern Washington and San Juan planning area will undoubtedly experience real effects of climate change during the 20 year period that the RMP is in effect. Many prescriptions in the RMP may contribute to and exacerbate the impacts of human-induced global climate change. In addition to a genuine analysis of impacts, it is imperative that BLM craft strategies for addressing the impacts of climate change both in terms of mitigating management decisions' contributions to climate change and adapting to inevitable impacts of climate change.

A. BLM must take a hard look at climate change impacts from management decisions in the environmental impact statement for the resource management plan

Impacts to the ecosystem from climate change include shrinking water resources; extreme flooding events; invasion of more flammable non-native plant species; soil erosion; loss of wildlife habitat; and larger, hotter wildfires. Many of these impacts have been catalogued in

[1] It has been estimated that the average temperature of the Northwest region of the United States has already increased 1.5°F to 4°F over the past century and is projected to increase another 3 to 10°F this century. *See*, United States Global Change Research Program, *Global Climate Change Impacts in the United States* (2009).

recent studies by federal agencies showing the impacts of climate change specifically in the United States such as the recent report entitled Global Climate Change Impacts in the United States, *available at* http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts.

On September 14, 2009, Interior Secretary Salazar issued Secretarial Order (S.O.) No. 3289. This order unequivocally mandates all agencies within the Department of Interior to "analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, developing multi-year management plans, and making major decisions regarding potential use of resources under the Department's purview." S.O. 3289, *incorporating* S.O. 3226 (emphasis added). The Eastern Oregon and San Juan RMP falls squarely under this guidance and BLM must assess impacts from the proposed actions that may directly, indirectly, or cumulatively result in exacerbating climate change within this document.

Additionally, the BLM State Office for Oregon/Washington has issued guidance on analyzing greenhouse gas emissions and addressing changing climate conditions in NEPA documents (IM No. OR-2010-012). This policy guidance states that this type of analysis should be included in resource management plans as these types of plans "typically have a long enough duration that climate change could potentially alter the choice among alternatives."

BLM must fully analyze the cumulative and incremental impacts of the proposed decisions in the RMP. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1217 (9th Cir. 2008). In *CBD v. NHTSA*, the NHTSA failed to provide analysis for the impact of greenhouse gas emissions on climate change and was rebuked by the U.S. Court of Appeals for the Ninth Circuit, which observed that "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." 538 F.3d at 1217. For example, off-road vehicle designations, oil and gas management stipulations, and renewable energy development may significantly increase or reduced greenhouse gas emissions contributing to climate change and must be analyzed under NEPA.

Further, NEPA regulations require that NEPA documents address not only the direct effects of federal proposals, but also "reasonably foreseeable" indirect effects. These are defined as:

> Indirect effects, which are caused by the action and are later in time or farther removed in distance, *but are still reasonably foreseeable*. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." 40 C.F.R. § 1508.8(b).

BLM is required to take a hard look at direct, indirect, and cumulative impacts to and from climate change in the planning area in the RMP. The following sections provide a suggested framework for this analysis in the RMP.

1. Quantification of Greenhouse Gas Emissions

BLM must analyze greenhouse gas emissions in the planning area as part of the RMP revision. As stated in IM No. OR-2010-012, "analysis of effects on greenhouse gas levels should be

included in relevant programmatic analyses, such as resource management plan environmental impact statements."

As a general approach, BLM should first assess and, wherever possible, quantify or estimate greenhouse gas (GHG) emissions by type and source by analyzing the direct operational impacts of their proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For many projects, energy consumption will be the major source of GHGs. The indirect effects of a project may be more far-reaching and will require careful analysis. Within this category, agencies should evaluate, *inter alia*, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, downstream combustion of fossil fuels extracted or refined by the project, water consumption, water pollution, waste disposal, transportation, the manufacture of building materials, and land conversion.

Because failure to conserve carbon sinks results in direct and quantifiable GHG emissions as well as indirect effects from reduction in carbon sequestration, the GHG effects of destruction of carbon sinks should be analyzed as part of the EIS. The GHG effects of destruction of carbon sinks should be analyzed both in terms of carbon already stored in the landscape and soil itself and in terms of the landscape's ongoing carbon-capturing properties. Such an analysis requires that an initial inventory of carbon storage potential be conducted for each landscape. The environmental review should assess and where possible quantify all the various component carbon pools – live trees, other vegetation, dead trees or vegetation (coarse, woody debris and snags), logs, litter, duff, and mineral soil – and the fluxes of carbon to and from these pools, due to natural processes like decay and fire, and those associated with management, harvest and/or manufacture of extracted resources, including the burning of fossil fuels needed to remove, transport, and process those materials. In conducting this assessment, fluxes associated with fire management and the restoration of the resilient native ecology should be accounted for separately. Net fluxes from terrestrial pools to the atmosphere may occur from management activities, such as prescribed and natural fire management, but may be considered beneficial, if they enhance the long-term carbon storage ability of the ecosystem and enhance ecosystem integrity.

While quantifying the GHG emissions from decisions in the RMP is important, BLM is also required to include qualitative analysis of impacts. A suggested approach for this type of analysis can be found in the section entitled "Risk Assessment" below.

2. Addressing Climate Change Conditions

BLM baseline data on climate change must be sufficient to permit analysis of impacts under NEPA. Importantly, 40 C.F.R. § 1502.15 requires agencies to "describe the environment of the areas to be affected or created by the alternatives under consideration." Establishment of baseline conditions is a requirement of NEPA. In *Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." The court further held that "[t]he concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process."

There is a growing body of scientific information already available on climate change baseline conditions, much of it generated by or available through federal agencies. Where there is

scientific uncertainty, NEPA imposes three mandatory obligations on BLM: (1) a duty to disclose the scientific uncertainty; (2) a duty to complete independent research and gather information if no adequate information exists unless the costs are exorbitant or the means of obtaining the information are not known; and (3) a duty to evaluate the potential, reasonably foreseeable impacts in the absence of relevant information, using a four-step process. Unless the costs are exorbitant or the means of obtaining the information are not known, the agency must gather the information in studies or research. 40 C.F.R. § 1502.22. Courts have upheld these requirements, stating that the detailed environmental analysis must "utiliz[e] public comment and the best available scientific information." *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1171-72 (10th Cir. 1999) (citing *Robertson v. Methow Valley Citizens' Council*, 490 U.S. at 350); *Holy Cross Wilderness Fund v. Madigan*, 960 F.2d 1515, 1521-22 (10th Cir. 1992).

As the Supreme Court has explained, while "policymaking in a complex society must account for uncertainty," it is not "sufficient for an agency to merely recite the terms 'substantial uncertainty' as a justification for its actions." *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co., 463 U.S. 29, 52* (1983). Instead, in this context, as in all other aspects of agency decision-making, "[w]hen the facts are uncertain," an agency decision-maker must, in making a decision, "identify the considerations he found persuasive." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 520 (D.C. Cir. 1983), *quoting Ind. Union Dept., AFL-CIO v. Hodgson*, 499 F.2d 467, 476 (D.C. Cir. 1974).

BLM's duty to evaluating reasonably foreseeable significant adverse impacts includes "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 CFR 1502.22(b). Such impacts are especially significant in the face of climate change.

BLM must provide the public with an explanation of both the data used in analyzing the potential effects of management alternatives and the methods used to conduct the analysis, as well as an opportunity to provide comments and propose corrections or improvements.

B. BLM must craft long-term management prescriptions without permanent impairment and unnecessary or undue degradation to the resources in the face of climate change.

The Federal Land Policy and Management Act (FLPMA) gives BLM the authority to manage and plan for emerging issues and changing conditions that global climate change will affect in the planning area. FLPMA mandates that when BLM revises land use plans, it must "use and observe the principles of multiple use and sustained yield set forth in this and other applicable law" 43 U.S.C. § 1712(c).

> The term "multiple use" means the management of the public lands and their various resource values so that they are utilized in the combination that will <u>best meet the present and future needs of the American people</u>; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for <u>periodic adjustments in use to conform to changing needs and conditions</u>. . . a combination of balanced and diverse resource uses that takes into account the <u>long-term needs of future generations for renewable and nonrenewable resources</u>. . . and harmonious and coordinated management of the various resources <u>without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources</u> and

> not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

43 U.S.C. § 1702(c).

Additional pertinent requirements of FLPMA that specifically apply to land use planning include using "a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences; consider[ing] relative scarcity of the values involved; and weigh[ing] long-term benefits to the public against short-term benefits. *Id*.

FLPMA provides that BLM must "take any action necessary to prevent unnecessary or undue degradation to managed resources." 43 U.S.C. §1732(b). These provisions combine to necessitate on-the-ground implementation of climate change policies.

In addition to the agency's duty to take a hard look at the impacts of climate change to and from the proposed vegetation management plan, BLM must also include a range of alternatives that includes a strategy for mitigating these impacts. CEQ regulations instruct agencies to consider alternatives to their proposed action that will have less of an environmental impact, specifically stating that "[f]ederal agencies shall to the fullest extent possible: . . . Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e) (emphasis added); see also, 40 C.F.R. §§ 1502.14, 1502.16.

The impacts of climate change should be a major factor in every alternative that is created since it is an undeniable reality that will drive all land use planning decisions. As provided in the Oregon/Washington State Office guidance document IM OR-2010-012, "[r]esource management plans and other broad programmatic analyses are actions that would typically have a long enough duration that climate change could potentially alter the choice among alternatives."

Further, general statements that BLM will conduct monitoring are also not an appropriate form of mitigation. Simply monitoring for expected damage does not actually reduce or alleviate any impacts. Instead, a vigilant science-based monitoring system should be set out in the RMP in order to address unforeseeable shifts to the ecosystem. A detailed monitoring approach is also required under the BLM's planning regulations:

> The proposed plan shall establish intervals and standards, as appropriate, for monitoring and evaluation of the plan. Such *intervals and standards shall be based on the sensitivity of the resource* to the decisions involved and shall provide for evaluation to determine whether mitigation measures are satisfactory, whether there has been significant change in the related plans of other Federal agencies, State or local governments, or Indian tribes, or whether there is new data of significance to the plan. The Field Manager shall be responsible for monitoring and evaluating the plan in accordance with the established intervals and standards and at other times as appropriate to determine whether there is sufficient cause to warrant amendment or revision of the plan.

43 C.F.R. § 1610.4-9 (emphasis added).

Such vigilant monitoring is absolutely necessary in order to create an effective adaptive management framework in the face of climate change.

The following is The Wilderness Society's recommended approach to developing management prescriptions to allow the land and resources to adapt to the impacts of climate change while meeting the agency's legal obligations:

Recommendations: The proposed revision to the land use plan for this area provides BLM with an excellent opportunity to analyze the impacts from climate change to the planning area over the next two decades, as well as the contribution to climate change from management decisions made in the plan. This analysis should in turn lead to the development of thoughtful management prescriptions and alternatives in the land use plan that will address how BLM will mitigate these causes and adapt its management over the coming years to prevent permanent impairment and unnecessary or undue degradation to the resources in the face of climate change. Like other land management agencies, BLM has been struggling to define how it can meet its legal obligations to analyze the baseline conditions and environmental impacts associated with climate change in light of scientific uncertainty and complexity as well how to set management prescriptions that mitigate and adapt to additional or exacerbated stressors caused by a changing climate.

In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change reviewed a number of impacts on biodiversity associated with anticipated changes in climate world-wide and concluded, "Overall, climate change has been estimated to be a major driver of biodiversity loss in cool conifer forests, savannas, mediterranean-climate systems, tropical forests, in the Arctic tundra, and in coral reefs… In other ecosystems, land-use change may be a stronger driver of biodiversity loss at least in the near term…" but "beyond 2050 climate change is very likely to be the major driver for biodiversity loss globally" (Fischlin et al. 2007, p.241). The IPCC notes further that, "Although links between biodiversity intactness and ecosystem services remain quantitatively uncertain, there is high confidence that the relationship is qualitatively positive" (Parry et al. 2007). Thus, the IPCC has concluded that through its influence on biodiversity, climate change is likely to have direct negative consequences on the provision of ecosystem services. In response, they prescribe "<u>an iterative risk management process that includes both mitigation and adaptation, taking into account actual and avoided climate change damages, co-benefits, sustainability, equity and attitudes</u>." (IPCC 2007) (emphasis added).

Under the pressures of global change, it must be acknowledged that many objects of conservation are at risk wherever they are found, and the traditional natural resource management paradigm of modifying ecosystems to increase yield must change to a new paradigm of managing wildland ecosystems to minimize loss – specifically loss of the ecosystem composition, structure, and function that yields the benefits we seek from wildlands. Natural resource management must change from a paradigm of maximum sustained yield to a paradigm of risk management.

Although there is no widely-accepted method of assessing and managing risk, we recommend breaking risk down into its component parts—vulnerability, exposure, and uncertainty—as a useful way to think about risk to biodiversity and productive potential. **In the following sections of this document, we recommend an approach for assessing risk in the planning area as well as an approach for management of that risk for BLM to comply with its legal obligations under NEPA and FLPMA as set out above.**

II. BLM SHOULD ADOPT THE FOLLOWING RISK ASSESSMENT AND MANAGEMENT APPROACH TO THIS LAND USE PLAN TO COMPLY WITH ITS LEGAL OBLIGATIONS

RISK ASSESSMENT: A RECOMMENDED APPROACH[2]

We strongly recommend that the agency use the following "risk assessment" strategy when evaluating impacts to the planning area under NEPA and relevant guidance.

Efforts to manage risk begin with a risk assessment, which characterizes risk in terms of vulnerability, exposure, and uncertainty, or, as Bartell (1998) has written, an inquiry into "What can go wrong?" and "How likely is it to happen?" To these questions, Bartell adds a third, "So what if it does?" as a gauge to determine if action is needed to address the risk. Bartell's rendering is intended to frame the topic of formal, quantitative risk assessment, but the framework applies to less formal assessment of vulnerability, exposure, and uncertainty, as well.

Assessing Vulnerability

The vulnerability of ecosystems and the species and physical elements they comprise depends on their inherent qualities and their ability to change or adapt to address new climatic conditions. A system may be considered vulnerable if it is sensitive to the effects of climate change and has limited ability to adjust to those effects. For example, the rocky intertidal ecosystem may be highly sensitive to the effect of rising sea level (and the inundation of the intertidal zone) but less vulnerable if its species are capable of colonizing new habitat created by the rising seas (i.e., high sensitivity, high adaptive capacity). Conversely, a mountain stream community that is dependent on cold summer water from a melting glacier may be very vulnerable once the glacier has melted away, despite the ability of its constituent species to move great distances (i.e., high sensitivity, low adaptive capacity).

Vulnerability of component species can be affected by the tolerance of individual organisms to the direct effects of climate change, the ability of populations to adapt to those conditions through the expression of genetic variability, and the ability to adjust behaviorally to changes in the ecosystem, such as prey shifts. For example, dandelions (*Taraxacum officinale*), which occupy a broad range of climatic conditions despite possessing essentially no genetic variability in the species, would not seem to be inherently sensitive to climate, whereas pikas (*Ochotona princeps*), which live only in the narrow alpine zone of western mountains, may be highly sensitive (Holtcamp 2010). Some species that are able to move easily may be able to adapt well to climate change even if they are inherently sensitive, provided that they can find the conditions they need to live, and others may be able to remain in place, if the population can produce offspring that are adapted to the new conditions. Pollen records indicate that some species have been able to survive dramatic changes in climate in a given place, even though the individuals making up the current population may themselves be quite sensitive. A vulnerability assessment would examine the species and physical elements of existing wildland ecosystems and determine which elements are sensitive, which have the ability to adapt, and what the likely consequences would be of anticipated changes in climate.

[2] This approach is a truncated version from a larger research paper developed by The Wilderness Society during the scoping period for the Forest planning revision in the Sierra Nevada entitled "Managing the Risk of Climate Change to Wildlands of the Sierra Nevada" (2010). This broader paper illustrates the concepts we describe here and can be found in its entirety in Attachment 1.

Because ecosystems are so complex, it is impossible to evaluate the vulnerabilities of every population, species, community, or other element of the system in question. Instead, risk assessment must focus on particular, high-priority elements or "key vulnerabilities." In its 4th Assessment Report, the IPCC (Schneider et al. 2007) suggested the following criteria for identifying key vulnerabilities:

- magnitude of impacts,
- timing of impacts,
- persistence and irreversibility of impacts,
- likelihood of impacts and vulnerabilities,
- potential for adaptation,
- distributional aspects of impacts and vulnerabilities,
- importance of the system(s) at risk.

In other words, key vulnerabilities are likely to occur where the effects of climate change are large and intense, imminent, long-lasting, highly probable, and likely to limit the distribution of highly valued systems or system elements.

The IPCC uses their criteria to select key vulnerabilities across a broad array of systems: infrastructure, health, markets, agriculture, migration and conflict, as well as biological and geophysical systems. Focusing their thinking only on wildland systems, Running and Mills (2009) suggest that the most vulnerable elements of ecosystems are those that are 1) rare; 2) long-lived (with fewer generations in which to evolve); 3) isolated; 4) dependent on special habitats (especially those directly affected by climate, such as deep snow and ephemeral wetlands); and 5) susceptible to the kinds of disturbances likely to result from climate change (fire, floods, extreme drought). In addition to these "highly vulnerable" species, they recommend focusing on a) species with "a high public profile;" b) "data-rich" species; and c) "strongly interacting" species (keystone and dominant species). Species with a high profile are those that are appreciated for their strong contribution to ecosystems services, providing utilitarian, recreational, and aesthetic value. "Data rich" species provide the information necessary to devise potential conservation strategies, and "strongly interacting" species, by definition, control ecosystem function. Running and Mills apply their criteria specifically to species, but similar considerations may apply to features, such as glaciers, rare soils, riparian vegetation, and old growth forests. A vulnerability assessment should explicitly examine species and other ecosystem elements that meet these criteria and explore the factors that make them vulnerable.

***Recommendation*: The BLM should evaluate the planning area for key vulnerabilities according to the criteria above, and the nature of the climate threat to selected ecosystem elements should be fully examined and presented as part of the plan revision process in order to comply with its legal obligations under NEPA and other relevant laws and regulations. Such an assessment should include careful consideration of species and habitats of conservation concern.**

Assessing Exposure

The assessment of exposure to climate change requires both the examination of the probability and timing of future climate change and the likely changes to which ecosystem elements may be vulnerable. Changes in average temperature and precipitation are important first-order effects to which many species are sensitive, but there are many other effects that constitute exposure. As mentioned, melting glaciers may cause an increase in summer stream temperature. Increased droughts may stress plants and animals, and early onset of spring is already increasing exposure

to fire activity (Westerling et al. 2006). More subtle changes are also expected. Plants may be exposed to pollinator shortages, and species range shifts may turn native species into invasive species. A risk assessment should examine the probability of exposure to these and other likely effects.

Assessing exposure probability involves combining information about likely climate change and its effects. Possible climate change can be assessed using predictive models that can be run under a variety of future scenarios. The results of these climate models can then be linked to other models to explore effects on future vegetation, fire regimes, hydrology, etc. (Lenihan et al. 2003). Where models agree with each other and produce similar results under multiple scenarios, the results can be viewed with a high degree of confidence. Where models produce a range of behaviors, prediction is less robust. In general, as the spatial resolution of models increases through the process of "statistical downscaling," agreement, and hence confidence, decreases. Millar et al. (2007) note, "We might feel confident of broad-scale future environmental changes (such as global mean temperature increases), but we cannot routinely predict even the direction of change at local and re-gional scales (such as increasing or decreasing precipitation)." Nevertheless, models can be used to explore possibilities, "game different scenarios, and gain qualitative insight on the range and direction of possible future changes without committing to them as fore-casts" (Millar et al. 2007).

In addition to examining the probability of various changes in climate, an assessment of exposure should examine the consequences of those changes and where they are likely to occur in space and time. For example, sea-level rise is a highly likely and potentially devastating consequence of climate change but one that is limited in extent to coastlines. Increased fire activity is also to be expected, but exposure is likely to be of greater concern near homes than away from them. An exposure assessment should examine where the threat of increased fire activity is likely to be most acute, including how that threat will change with growth of the "wildland-urban interface." Potential future effects are many, and precise quantification of probabilities may be beyond the limits of existing tools and budgets. In these cases, future possibilities can be explored through "scenario planning," in which groups of analysts or stakeholders consider a broad range of possible consequences of climate change (Welling 2008).

***Recommendation*: A risk assessment conducted as part of the plan revision should identify the direct and indirect modes of exposure to climate change and attempt to quantify them based on the best available science as required by NEPA and other laws and regulations.**

Assessing Uncertainty

Because assessing the risks associated with climate change involves predicting future conditions, it is no surprise that it is fraught with uncertainty. Limitations in predictive ability derive not only from uncertainty about future conditions but from limitations of our understanding of current and historical conditions and the factors that drive ecosystem behavior. Table 1 lists only a few of the many sources of uncertainty that plague the assessment of risk from climate change. Each of these sources contributes to risk, and the better they are understood, the more complete the assessment of risk.

The sources in Table 1 are not an exhaustive list but only illustrate the range of unanswered questions. As vulnerabilities and exposure are assessed, many more uncertainties will be revealed. It is critically important that these uncertainties be explicitly documented and incorporated into the risk assessment so that strategies can be developed to reduce uncertainty in the plan.

Table 1. Sources of uncertainty in understanding future climate change and its effects	
Data limitations	♦ Poor records of past climate surfaces ♦ Poor records of species occurrences
Limitations in ecological knowledge	♦ Habitat/range models ("climate envelopes") ♦ Limited understanding of species response to climate change ♦ Mortality rates and thresholds of mortality and recruitment ♦ Dispersal ♦ Species interactions ♦ Behavior of novel ecosystems ♦ Effects of interacting stressors
Model limitations and variability	♦ Limited understanding of the climate system ♦ Intermodel variation in model output ♦ Intramodel variation in model output ♦ Downscaling coarse resolution global output to generate higher resolution future climate (especially in topographically diverse terrain)
Vagaries of human behavior	♦ Future emissions scenarios ♦ Institutional resources ♦ Public support ♦ Planning horizon ♦ Shifting decision processes and loci

Under such an indeterminate future, assessing vulnerability and exposure will be especially difficult, placing added importance on the identification and reduction of uncertainty in land management plans.

Recommendation: **Pursuant to NEPA, BLM should identify and document known sources of uncertainty and data needs and initiate action to fill those gaps at the earliest possible point in the RMP revision process. Where data gaps remain, the plan should include strategies to reduce uncertainties.**

MANAGING THE RISK OF CLIMATE CHANGE: A RECOMMENDED APPROACH

We strongly recommend that the agency use the following "risk managment" strategy in conjunction with the "risk assessment" strategy laid out above when developing management prescriptions in the face of climate change.

Adaptation is the management of risk to reduce the adverse effects of climate change on ecosystem services received from wildlands. Actions that reduce the vulnerability to, exposure to, and uncertainty of climate change impacts contribute to adaptation. Each of these aspects of risk can be managed to reduce the negative consequences of climate change to wildlands.

Unfortunately, which techniques will be most effective remains to be determined. Learning will require an experimental approach, tailored as appropriate to the specific lands on which they are applied. Silviculture and other intensive management actions will not be appropriate in lands designated to protect wilderness character, but they may be tested on less-restrictive parts of the landscape. The important thing is that these methods are approached experimentally, with monitoring to facilitate rapid learning (Lawler et al. 2010). Finally, the diversity of administrative designations present in most landscapes can themselves provide a framework for experimentation that can accelerate discovery of approaches to climate change adaptation.

Reducing vulnerability

Depending on which ecosystem elements are identified as "key vulnerabilities" in the risk assessment, a variety of options are available to decrease vulnerability by reducing the sensitivity to climate change or by enhancing adaptive capacity. One of the simplest and most direct ways to reduce sensitivity is to address the stressors in addition to climate change that make species and ecosystems vulnerable to climate change. Reducing these anthropogenic stressors has been called the "low-hanging fruit" of climate change adaptation (Joyce 2009) and includes increasing the size and number of protected reserves, restoring altered disturbance regimes, halting and repairing the loss and fragmentation of habitat, managing invasive species, cleaning up air and water pollution, and addressing the legacy of past management. According to Galatowitsch et al. (2009), "Key resilience actions include providing buffers for small reserves, expanding reserves that lack adequate environmental heterogeneity, prioritizing protection of likely climate refuges, and managing forests for multi-species and multi-aged stands."

In addition to reducing susceptibility, actions can be taken to enhance the capacity of species and ecosystem elements to remain viable in the face of climate change. Enhancing adaptive capacity consists of actions to facilitate or improve the ability of species (usually) to respond favorably to climate change. The following are several examples of strategies to enhance adaptive capacity derived from the burgeoning literature of "adaptation options" (Noss 2001, Millar et al. 2007, Joyce et al. 2008, Biringer 2003, CNRA 2009, Glick et al. 2009, Running and Mills 2009).

- *Promote connected landscapes.* Restoring and maintaining habitat connectivity provides species with the "room to roam" they need to respond to a changing climate. Without connected habitat, species may not be able to disperse to new locations exhibiting a favorable climate. Providing corridors and habitat connectivity facilitates the innate capacity to disperse in response to climate change.
- *Facilitate migration.* Where movement in response to climate change is blocked by habitat fragmentation or where species lack the dispersal ability to "keep up with" a changing climate, species can be physically moved across barriers. Of course, such decisions must be weighed extremely carefully to avoid the well-known consequences of

the arrival of invasive species into novel habitats. McLachlan et al. (2007) offer guidelines for consideration of assisted migration.

- *Provide opportunities for rapid evolution.* The ability of species to adapt to new climates is enhanced where new genotypes are frequently exposed to new conditions. Restoration of disturbance regimes, such as fire, that provide for frequent opportunities for expression of genetic variability can accelerate the process of adaptation.
- *Maintain genetic diversity.* Running and Mills (2009) note, "Contemporary adaptive evolution is facilitated by a medium level of gene flow," suggesting that adaptation may be aided better in the short run by moving genes, rather than species. Maintaining habitat and dispersal connectivity among subpopulations will ensure continued opportunities for interbreeding and cross-pollination and help maintain adaptive capacity in populations. Also, guidelines for replanting following timber harvest currently require seedlings to be derived from local seed sources. Expanding the range from which seedlings are derived could help introduce new, better-adapted genotypes into the population.
- *Promote species diversity.* At the community or ecosystem level, adaptation and the maintenance of ecosystem services is well served by maintaining a rich diversity of species. Different species possess different thresholds of response to climate change. The loss of an individual species due to climate change will have a less dramatic effect on an ecosystem if other species are present that can fill at least part of that species' niche.
- *Manage for "asynchrony".* Populations are more vulnerable when all the individuals are in the same demographic stage. The current mountain pine beetle epidemic exemplifies the consequences of a synchronous population, in this case due to the establishment of a single cohort of lodgepole pine throughout the West following widespread mining and fires in the late 19th century. Restoring disturbance regimes can help maintain a heterogeneous landscape with multiple age classes and help reduce vulnerability to climate change.
- *Enhance seed banks and ex situ conservation.* Owing to the unpredictability of the consequences of climate change, it is not too early to consider enhancing and expanding seed banks and other "off site" conservation efforts. Climate change may lead to localized extinctions, especially of isolated populations, and, in these cases, enhancing adaptive capacity will depend on the artificial reintroduction of stock maintained elsewhere.
- *Allow establishment of "neo-native" ecosystems.* The species that exist today have generally been around far longer than the ecosystems they currently compose, often in locales outside of their current range where the climate was historically suitable. As the climate changes, species can be expected to reoccupy their former range where suitable. Also, where species are to be introduced for purposes other than biodiversity conservation (e.g., timber plantations, pastures), review of the paleoecological record may provide insights into where species may thrive in their historically "native" range under an altered climate. Ecosystems so established may be considered "neo-native" in that they would consist of native species in their historical range, though in combinations that may not currently exist.

***Recommendation*: BLM has a legal duty to prevent permanent impairment and unnecessary or undue degradation to the resources, and to manage the resources for the long-term needs of future generations. This obligation requires the agency to reduce the vulnerability of the ecosystem to the very real threats posed by climate change. BLM can comply with this duty by adopting several or all of the strategies listed above, depending on the ecological composition and land tenure of the area.**

Reducing exposure
As with vulnerability, the climate adaptation literature indicates several options to manage risk by reducing exposure. Most important, but least directly affected by management, is mitigation of greenhouse gas emissions themselves. More under managers' control is the exposure to the effects, both direct and indirect, of climate change. Last, managers can identify and protect those places that are least likely to be affected by climate change, so called "climate refugia."

Mitigation. While the vast majority of emission reduction must be accomplished in the energy sector, there are several actions that wildland managers can take to prevent unnecessary release of greenhouse gases to the atmosphere. One of the easiest sources to control is the conversion of old growth to young forest. It is well established that when older forest is harvested and regenerated to younger forest, a net release of carbon dioxide results from the decomposition of coarse and fine debris and soil organic matter that occurs in the warm post-harvest environment (Harmon et al. 1990).

Reducing exposure to the effects of climate change. While it is clear that forest management can affect exposure through its influence on greenhouse gas emissions, it is also clear that climate change has become inevitable, and risk management must focus on reducing exposure to its effects. One of the most likely of these effects is drought, due to more rapid melting of snowpack and increased evapotranspiration – even if precipitation does not change (National Research Council 2008). Increased drought will result in lower levels of summer streamflow and warmer water temperatures, with potentially devastating effects on aquatic ecosystems and impacts on the ability of ecosystems to provide water for human use. In addition to drought, extreme flood events are likely to increase as a result of rain-on-snow events where they have not occurred historically. To address these effects, actions will need to be taken to build up the buffering capacity of watersheds and restore riparian ecosystems degraded by grazing, water diversion, and channeling. The U.S. Climate Change Science Program offers a number of adaptation options for managers of Wild and Scenic Rivers that can be applied as well wherever riparian ecosystems are exposed to the effects of climate change (*See,* Palmer et al. 2008).

Among the emerging strategies to buffer the effects of climate change is to restore the water retaining capacity of river systems. Opperman et al. (2009) argue for actively reconnecting rivers to their floodplains. Similarly, Running and Mills (2009) suggest in some cases it may be helpful to construct "pico-dams" in headwater streams, tiny impoundments intended to retain runoff and maintain late-season flows. Such a strategy may be implemented through the restoration of wet meadows that were drained to facilitate livestock grazing and other uses. In any case, actions such as fish stocking or impoundment should be done to sustain ecosystem integrity and functionality, not simply to enhance sport fishing or manage water supply. Closing and rehabilitating roads can also restore subsurface flow and slow the delivery of runoff to channels.

Climate Refugia. In some cases, it may be possible to avoid exposure to many of the effects of climate change by identifying and protecting those places where climate is unlikely to change. Noss (2001) notes that refugia from past unfavorable climates harbored much of the genetic and species diversity from which extant populations and communities derive and are important objects of conservation for the diversity they still harbor. Similarly, we can expect some places to be less prone to change in the future, and these places will be important to protect for their potential to harbor diversity in the face of regional climate change. For example, Noss cites the case of talus slopes in Iowa that occur in cold-air drainages below ice-filled caves that now support dozens of vascular plant species that are disjunct from boreal forests to the north and west

and at least eight landsnail taxa that were previously thought to have gone extinct at the end of the Pleistocene. As downscaled climate models continue to improve, it may be possible to use them to identify places that will be less exposed to climate change and can be protected for their conservation value (Loarie et al. 2009), though much work remains to determine the appropriate size, configuration, etc., for such refugia.

***Recommendation*: BLM a has legal duty to prevent permanent impairment and unnecessary or undue degradation to the resources, and to manage the resources for the long-term needs of future generations. This obligation requires the agency to reduce exposure of the ecosystem to the very real threats posed by climate change. BLM can comply with this duty by adopting several or all of the options listed above, depending on the ecological composition and land tenure of the area.**

Reducing uncertainty

Uncertainty appears as an obstacle to climate change adaptation in virtually every treatment of the subject; reducing uncertainty may therefore be considered critical to progress in managing risk from climate change. Much uncertainty derives from insufficient knowledge of current conditions and management effects and may be reduced simply through increased emphasis on *monitoring*. Reducing uncertainty about the nature of ecological and social systems and their future behavior requires investment in *research*. Learning can be greatly accelerated by the process of *adaptive management* that combines aspects of both research and monitoring to reduce uncertainty. Where knowledge of the future is especially high and control over the consequences of climate change is low, *scenario planning* may be used to prepare for possible outcomes, thus reducing uncertainty and anxiety over how to respond.

Monitoring. A major impediment to the reduction of uncertainty regarding future impacts of climate change is simply a lack of knowledge of current baseline conditions and the ability to detect change in the future. The U.S. Climate Change Science Program (Kareiva et al. 2008) identifies establishing baseline conditions and monitoring as key elements of im-pact assessment necessary to support adaptation. In their review of the climate change adaptation literature, Glick et al. (2009) identify increased monitoring as one of five general principles of adaptation. Monitoring is needed not only to detect the effects of climate change but to assess the success of adaptation actions.

Research. Many of the uncertainties associated with climate change can only be addressed through formal research, and research will continue to be essential to climate change adaptation. Accomplishment of much of this research will require cooperation with the agencies managing the land. Reduction of future uncertainty can be greatly accelerated if the managing agencies work closely with scientists to facilitate, advise, and assist in climate change research. If it has not done so already, BLM should invite broad participation from DOI's Landscape Conservation Cooperatives and Regional Science Centers throughout the RMP revision.

Adaptive management. When aspects of monitoring and research are combined into an approach to management that is explicitly intended to accelerate learning, it is called "adaptive management." According to Innes et al. (2009), "adaptive management can be viewed as a systematic process for continually improving management policies and practices by monitoring and then learning from the outcomes of operational programmes. Within the context of climate change,…adaptive forest management is one tool that could enable managers to adjust the structure and the consequent functioning of the forest ecosystem to resist harmful impacts of

climate change, and to utilize the opportunities created by climate change." (p.137). Typically, adaptive management follows a continuous cycle of planning, implementation, monitoring and evaluation (DeLuca et al. in press).

Adaptive management is sometimes described as either "passive", when management is modified simply as a result of observing the consequences of past action, or "active", when management actions are designed explicitly as an experiment to test competing hypotheses (Kareiva et al. 2008). Whatever the case, monitoring is essential to the process of evaluation and modification. Experience has also shown that adaptive management functions best when it involves the public in the identification of the hypotheses to be tested, in the design of the monitoring strategy, and in the implementation of the monitoring program (Bliss et al. 2001, Innes et al 2009). So important is stakeholder involvement to the development of the "social license" necessary for management action that "the entire concept has been renamed adaptive collaborative management or adaptive co-management" (Innes et al. 2009). In the end, BLM must apply the lessons learned from monitoring and research to amend their decision path as necessary.

Scenario planning. When uncertainty is high and the "controllability" of the outcome is low, there may be little that managers can do to design management strategies "to resist harmful impacts of climate change" as referred to above (Innes et al. 2009). In these cases, uncertainty, or at least anxiety over the uncertainty of climate change, can be reduced by scenario planning. Scenario planning is a (usually) qualitative process "that involves exploration and articulation of a wide set of possible or alternative futures" (Baron et al. 2008). Scenarios are plausible stories or narratives describing what might happen under an uncertain future. Their development can be aided by quantitative data or models, but the idea is to explore a range of possible futures, rather than try to predict a single "most-likely" case. When developed in the context of broad stakeholder participation, they can increase understanding of key uncertainties, facilitate the incorporation of alternative perspectives into planning, and improve the capacity for adaptive management (Welling 2008).

***Recommendation*: Reducing uncertainty of baseline conditions and the impacts of management in the face of climate change should be a major priority of any risk management strategy set forth by the agency to reduce the risk posed by climate change. BLM should build in robust research, monitoring, adaptive management, and scenario planning into the land use plan in order to address this challenging aspect of risk management.**

III. BLM HAS A DUTY TO PRIORITIZE AND PROTECT AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The Federal Land Policy and Management Act (FLPMA) obligates the BLM to "give priority to the designation and protection of areas of critical environmental concern [ACECs]." 43 U.S.C. § 1712(c)(3). ACECs are areas "where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes." 43 U.S.C. § 1702(a).

BLM's ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. *See*, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance (such that it has

significant value(s) in historic, cultural or scenic values, fish & wildlife resources, other natural systems/processes, or natural hazards) and importance (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile or vulnerable). In addition, the area must require special management attention to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions. For potential ACECs, management prescriptions are to be "fully developed" in the RMP. Manual 1613, Section .22 (Develop Management Prescriptions for Potential ACECs). The BLM-managed lands on the San Juan Islands meet all three criteria for designation as an ACEC.

Re-designation of ACECs

Point Colville and Iceberg Point were designated as ACECs in 1990 in order to protect the outstanding natural values in these areas. These values are even more relevant and important today and in direct threat of being dramatically altered in the face of climate change. Threats to these areas include unsustainable recreation use and loss of natural meadows from fire suppression.

Nomination of New ACECs

We nominate the remainder of the San Juan Island within the National System of Public Lands to be designated as Areas of Critical Environmental Concern including, but not limited to Cattle Point, Chadwick Hill, Watmough Bay, Patos Island including the Patos Lighthouse, Turn Point and the Turn Point Lighthouse, and Kellet Bluff. BLM should consider how the partnership with WA State Parks Department can continue for managing some of these areas. Several small islands, rocks, and reefs under BLM stewardship should also be considered for ACEC designation.

BLM should provide an evaluation of and prescriptions for how the plan will be consistent with the land use plans for the nearby San Juan Island National Wildlife Refuge pursuant to 43 C.F.R. § 1610.3-2. The proximity to the National Wildlife Refuge in the area may be confusing to the public with the refuge islands having the potential to receive inappropriate use because of the public's inability to distinguish BLM lands from the refuge. One approach is to manage these small areas in a way that mirrors that of the National Wildlife Refuge. This can be done through ACEC designation and specific protective management prescriptions for lands nearby the refuge along with appropriate implementation on the ground.

These are nationally significant lands. There are no other lands managed by the Bureau of Land Management within this ecoregion. These units provide extraordinarily scenic vistas of this unique region of the United States. These islands contain important historical resources like the Patos and the Turn Point Lighthouses, both established in 1893. Much like the California Coastal National Monument, managed by BLM in the National Landscape Conservation System, this series of islands, rocks, and reefs provides habitat for myriad species of marine wildlife.

These islands deserve special management attention due to their relatively small areas being highly susceptible to degradation and for the protection, adaptation, and study of global climate change. In light of the threat and uncertainty of global climate change, BLM should designate these spectacular lands as ACECs.

Specific Proposed Management Prescriptions
These ACECs should be afforded the same protective management as Point Colville and Iceberg Point, including, but not limited to:

- Designate VRM Class I.
- Prohibit all motorized vehicular travel, except for emergency vehicles.
- Prohibit any trail construction.
- Prohibit fuel wood cutting and commercial timber sales.
- Require permits for any vegetation collection.
- Survey and clearly mark the boundaries of both parcels.
- BLM will seek out opportunities to acquire non-federal land within the ACEC boundary, including purchase from willing private sellers and/or exchange, and upon acquisition such lands will be incorporated into the ACEC.
- Close the area to all forms of energy development.
- Exclude authorizations for new rights-of-way or other reality actions (including communications towers and wind development).
- All uses limited to designated roads and trails.
- Prohibit rights of way for additional roads.
- Prohibit mineral material sales.
- Prohibit grazing of livestock.
- Design management activities to protect federally or state listed threatened, endangered and/or sensitive species.
- Place signs to control visitor use as necessary.
- Require special permits for groups containing ten or more individuals.
- Establish a monitoring program, focusing on preserving natural qualities of the areas and adaptation of the area to climate change.
- Close the areas to any use or combination of uses that tend to degrade the natural values of the sites.

***Recommendations*: BLM should retain the ACEC designation and protective management prescriptions for both Point Colville and Iceberg Point in this RMP revision. In addition, BLM should consider designating the remainder of lands in the National System of Public Lands on the San Juan Islands as ACECs. These highly significant lands are like none other in the BLM system of public lands and are extremely important for the adaptation to and study of global climate change.**

CONCLUSION

The Wilderness Society, along with our members and supporters, thank you for considering these comments. We are especially interested providing input on climate change mitigation and adaptation evaluations and strategies created during this land management plan revision. We look forward to being involved throughout this process as it moves forward. Please contact us with any questions.

Sincerely,

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Washington Native Plant Society
Appreciate, Conserve, and Study Our Native Flora

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July 12, 2010

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Thank you for the opportunity to participate in the development of your Resource Management Plan for BLM properties in Eastern Washington and the San Juan Islands.

The Washington Native Plant Society's primary interest is in the protection of native plant species and their ecosystems. We will address your primary issues for your Resource Management Plan accordingly.

1. *How will shrub-steppe, and its associated riparian and wetland habitats be managed to maintain, improve, or restore healthy plant and wildlife communities?*

The question is a critical one for the future of one of the most important of our state's ecosystems. As your own analysis indicates one-half of the area historically occupied by shrub-steppe in Washington has been converted to agriculture with 40% of what remains being fragmented or degraded. Less than 15% of the shrub steppe community is still biologically intact in Washington.

Botanists, plant ecologists and others concerned about native plants are interested in the whole suite of vascular plants, as well as the mosses, lichens, fungi and algae, which complete the biological setting that other organisms inhabit and use. Ecosystems have evolved with complex interrelationships between the plants and animals in them. In the northwest, plants evolved without large populations of ungulates; as a result, native plants in the region are more sensitive to domestic livestock grazing than native habitats where large ungulates were historically present, such as bison in the North American great plains.

For public lands that will be grazed, practices that are least harmful to native ecosystems and plant populations should be ensured by BLM. Livestock grazing has a multitude of effects on native ecosystems, and potential negative effects can severely alter habitats, which are difficult to restore to natural conditions.

BLM's Oregon and Washington Rangeland Health Standards and Guidelines provide the agency with guidance and should be followed. We believe that an understanding of the critical role the

biological soil crust plays in a shrub-steppe ecosystem is essential, and should have been addressed more directly in your guidelines.

The Washington Native Plant Society adopted a policy on grazing of domestic livestock on public lands that we encourage you to consider. It may be found at http://www.wnps.org/about_wnps/administration/policies/grazing_policy.htm We would like to offer, for your consideration, recommendations contain within this policy.

The WNPS:

- Recommends development of formal decision-making criteria for, and the application of, appropriate grazing practices based on ecological conditions, such as the specific ecosystem and site grazing history.
- Recommends that previously ungrazed lands determined to be in excellent condition, are not grazed in the future. This is particularly important for shrub-steppe and garry oak habitats because of their limited extent.
- Recommends that sensitive ecological areas (such as riparian areas, wetlands, or rare plant habitats) are protected using appropriate practices (such as exclosures, managed intensity, duration and timing, or movement of animals).
- Recommends that grazing practices allow for flowering and sexual reproduction to provide for long-term viability of native plants.
- Recognizes that management decisions must be made to accommodate political or economic realities (such as human communities or land acquisition opportunities). With this in mind, the WNPS recommends the development of decision-making criteria for a grazing regime that accommodates political necessities, while affording the highest possibly protection to native plants and their habitats.
- Recommends that use of grazing for weed control should be applied carefully and monitored to preserve native plants and habitats. Use of grazing to control weeds may be most appropriate in permanently altered, non-native communities. Plant communities that have experienced significant alteration, such as invasion by exotic plants, should be managed where possible, to return them to a more natural state.
- Recommends to the extent possible, restoration to a more natural state, or rehabilitation to a more productive state, of significantly altered plant communities. Adequate monitoring followed by adaptive management may prevent the need for restoration or rehabilitation.
- Recommends a system of consistent monitoring and review that allows the grazing regime to be altered when necessary.
- Recommends that agencies build a system that provides adequate funding for all appropriate grazing management and monitoring practices. Hidden costs that can be barriers to appropriate management, and which should be included in funding plans, include mandated environmental compliance (NEPA/SEPA), monitoring, fencing, and weed control.
- Recommends that the costs and benefits of grazing should include both the return from grazing and the long-term costs of weed control, soil loss, water degradation, developing water sources, and loss of biological integrity. Short-term monetary return of grazing should not be the only consideration.
- Recommends that the availability of water for both grazing and ecological needs, particularly during drought-year scenarios, should be considered.

- Recommends that federal agencies cancel permits and make inactive those active allotments that are unused, with the intent of eventual closure and cancellation.

In the end, what really matters in terns of what will happen on the ground will be the allocation of financial and human resources to the implementation of the Resource Management Plan.

We encourage the BLM to devote resources to survey their shrub steppe and associated riparian lands to determine the quality of the habitat. The agency should especially focus on protecting the high quality habitat and focus restoration resources on the adjacent areas to create larger blocks of high quality habitat. BLM should also focus on maintaining and enhancing native plant communities in BLM managed shrub-steppe and riparian lands. This is especially important in the riparian areas. And finally, aggressively deal with invasive species that are the most serious threat to maintaining the quality of habitat.

2. *How should the BLM manage public lands with consideration of uses of adjacent lands given the mixed ownership pattern in the planning area?*

The problem of scattered tracts and isolated blocks does not have an easy solution. The management strategy should focus on the habitat value of the block or tract and potential for an integrated strategy with adjacent landowners, especially tribes and other federal and state agencies (landscape level). The uses allowed should be tied to the potential for adverse impact on the habitat value of the land with high value habitat being most restricted and degraded habitat being least. BLM may be faced with "a high demand for multiple and sometimes conflicting uses within the limited area" but the uses should be determined by the long-term habitat goals rather that short-term demands.

When possible BLM could establish use agreements with adjacent land-owners, which emphasize the principles of protection and restoration and which describe the <u>potential ecological condition</u> of each site. Where adjacent landowners will not abide by these principles, and where the site under consideration has no specific threatened, sensitive or endangered species or other features rendering it important to continue its federal protection, the Agency should consider a sale or land swap enabling it to acquire other good land adjacent to its present holdings. Land exchanges, when made, should honor the intent of the federal land policy and management act.

3. *How should the BLM manage multiple uses and resources that have changed, or that occur on lands that were either not administered by the BLM or were not within the planning area when the current RMP was developed?*

Multiple uses should follow a "no net loss" of natural or semi-natural lands policy. BLM should apply <u>at a minimum</u> the principles in their guidelines for rangeland health referenced above, with necessary modifications for alternate uses. The agency should consider the value of each property for, as an example, a wildlife or endangered species habitat or corridor. Equally, the agency should ensure that the various uses of the land by other interests do not threaten native fauna and flora, or seriously impair its value as habitat.

4. *How should the BLM facilitate energy development while still allowing for multiple uses and appropriate protection of public lands and resources?*

The issue of energy development will likely become increasingly important in the future. For pipelines and transmission lines, the critical infrastructure, the key will be how they are managed and how the impact is mitigated. We have numerous examples of doing it wrong within the state where the transmission routes have become invasion routes for noxious weeds and other invasive weed species. BLM should insist, as a condition for use, that a comprehensive mitigation strategy be developed and implemented.

We know the challenges are great for public land agencies with multiple demands for access and conflicting goals of users of this public resource. Our public lands are one of the greatest resources our nation has and as we become increasingly populated and demands for use accelerate, we hope the Bureau of Land Management manages these lands prioritizing their biological and environmental values. Public lands serve as a source of clean water, scenic beauty, inspiration and for many jeopardized species -- the only remaining suitable habitat.

Sincerely,

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on behalf of the Washington Native Plant Society

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Working to protect and restore Western watersheds and wildlife

Western Watersheds Project

July 12, 2010

District Manager Robert Towne
BLM Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

Dear Manager Towne:

Please accept the following as Western Watersheds Project's scoping comments on the proposed Eastern Washington and San Juan Resource Management Plan/Environmental Impact Statement (RMP/EIS).

GENERAL COMMENTS FOR ALL ALTERNATIVES

Shrub Steppe is the most endangered habitat in Washington State. It follows that shrub steppe dependent species are also imperiled. The pygmy rabbit for all purposes is extinct at this time, the captive breeding program underway diminishes the genetics of the local strain. As the species declined, no BLM management changes were analyzed or enacted to improve habitat value for the species. BLM did not know for sure if the species was even present on BLM lands, the status quo was maintained while the last of the rabbits were carried off in boxes, all twelve or so of them. BLM 6840 policy requires that BLM manage to preclude listing of any native species, yet this did not happen and does not presently. Now, the sagegrouse (Federal Candidate species), white-tailed jackrabbit (state Sensitive species), Washington ground squirrel (state threatened) and other shrub steppe obligates occupy less than optimum habitat on BLM lands. How is BLM held accountable for their actions that contribute to a need to list? If habitat is not optimum, then 6840 policy is blatantly ignored. BLM needs to show that they are managing for optimum habitat or they are contributing to a need to list.

The questions to be answered is: Are BLM vegetation communities capable of supporting shrub steppe obligates under current uses, and what is needed to move them toward optimum habitat values for shrub steppe obligates? What management actions are degrading habitat value at this time and will in the future? US Fish and Wildlife Service says the sagegrouse should be listed, but there are higher priorities. The BLM must follow the intent of the 6840 law, Endangered Species Law and manage for the recovery of the species at this time. Species recovery should be the direction of BLM land management, optimizing habitat

50% sugar cane bagasse & 50% recycled fiber

value for all shrub steppe species should be the dominant goal. There are and will be uses that are not compatible with managing for sagegrouse and other shrub steppe species, that is just the way it is. Most cattle grazing as practiced cannot be seen as compatible with managing for sagegrouse. Plant communities must be managed for late successional (seral) conditions to achieve the greatest value for shrub steppe species, as these are the evolutionary conditions present during coevolution of the plant and animal species. Plant and animal species did not evolve with the grazing intensity and duration practiced at this time. There were no large ungulates prior to European settlement. BLM wildlife biologists state in Grazing Environmental Assessments that the No Grazing Alternative affords the best conditions for improvement of sagegrouse and other shrub steppe species habitat. Why then are decisions not made that preclude grazing? Now is the time to improve habitat not after it is further degraded. BLM needs to pursue the costs of grazing lease buyouts for important habitats important to sagegrouse and other shrub step species. Buyouts need to be evaluated in the RMP.

The following need to be addressed in the RMP:

- Is grazing detrimental to the sustainability of shrub steppe obligate species? At this time, in consideration of the amount of habitat left and cumulative effects on sagegrouse sustainability, should grazing be allowed at all? The logic of BLM to allow grazing needs to be discussed in the document.
- Does grazing during the nesting season reduce nesting and brood rearing habitat for sagegrouse? It is known that sagegrouse are sensitive to disturbance and abandon nests when disturbed. How is this disturbance justifiable with the sagegrouse? Show the data to justify grazing during nesting.
- What is the range of natural variability for shrub steppe species, what were the conditions before European settlement? Native species are most sustainable if managed within the range of natural variability.
- What management conditions support and which reduce ecosystem and biodiversity sustainability?
- Restoration is a hot topic at this time, but we do not even begin to know how to do it. Not one old growth forest or climax shrub steppe has been restored at this time. Until we can create these conditions in a greenhouse, we must dispense of the hubris and call it experimentation. Need to qualify and quantify what is meant by restoration and how it will be undertaken. Will restoration lands be grazed and to what effect?
- Local natives must be used in revegetation. Need to define what a local native is and plant transfer guidelines for these materials. Will it be by drainage, subdrainage, and elevation bands as well? Geneticists need to be consulted. A non-local seed source is essentially an exotic species. Non-locals can lead to a decline of

traits needed for plant survival as well as change palatability for native species and change plant/animal relationships.

- How will BLM ensure that they are managing for Washington State Department of Fish and Wildlife recommendations for Sagegrouse? Field methods for measurement must be statistically and scientifically valid or they are meaningless and indefensible. Land use decisions must reflect these standards or BLM is contributing to a need to list.
- BLM lands must be inventoried to determine current seral stage conditions. How much is in climax, late seral, mid seral and low seral conditions? How much has retrogressed to a weedy non-native plant state? Plant communities need to be defined by vegetation community type not lumped together.
- Habitat value is determined by slope and distance from water. RMP analysis needs to consider slope and distance from water. There needs to be a breakdown in any habitat analysis by slope and distance from water. All land does not have the same habitat value. Sagegrouse do not nest on cliffs.
- Cattle AUM's need to be established based on actual available forage, then reduced by distance from water, slope, and utilization percentage. Currently, there is no support for AUM's as forage values have not been established. Carrying capacity is usually one of a four-part rangeland monitoring system, but is not done by BLM. At this time you have a grazing system that is not supportable based on monitoring or carrying capacity.
- Land Uses (ORVS, grazing by season, recreational summer use and fire potential, vehicle use) must be evaluated for adverse, reasonably foreseeable impacts to habitat. Are these uses compatible with recovery of sagegrouse or do they represent cumulative effects that may lead to reduced viability? Are there uses that need to be curtailed? What uses will be allowed in the future? What uses need to be discontinued until shrub steppe obligate species populations are more stable?
- Is BLM adequately staffed to police for approved uses that can degrade habitat value or adversely effect special status species? If not, then the use should not be allowed at all, because it will happen. Should BLM allow vehicle or horse use, or any use in sagegrouse wintering areas? During spring nesting and brood rearing periods?
- How will ORV use be managed? At this time it is all legally open. Is it compatible with special species management and does it result in resource degradation?
- Climax or late seral conditions represent the best habitat for sagegrouse. Lands that currently meet sagegrouse guidelines need to be maintained (late successional or climax vegetation communites), mid successional communities need to be improved to late seral conditions, and low seral vegetation conditions need to be improved to late seral vegetation communities wherever possible. If grazing is not consistent with maintenance or

improvement then it needs to be curtailed. There are some extremely dry, weedy, mostly low elevation communities that are not capable of improvement without large inputs of time and money (restoration) that could be grazed.

- Habitat for the sharp-tailed grouse needs to be analyzed and improved. They utilize birch catkins found along drainages in the Okanogan. Uses must be evaluated for adverse impacts to habitat.
- Saddle Mountain represents a large BLM holding just across the river from the Yakima firing center and a sagegrouse population. This land and its uses need to be evaluated for current and future sagegrouse sustainability. Is habitat improvement in order? Currently it is a land of many abuses: grazing, ORV use, weed infestations, and petrified rock mining. It is home to several special status plant populations that will need consideration in the RMP. Connecting habitat to the Douglas County sagegrouse population needs to be emphasized.
- Sensitive Squirrel populations in Klickitat County, Yakima, and Benton as well as northern squirrel populations in Chelan, Douglas and Okanogan Counties need analysis of effects in the RMP. In Yakima County a golf course was put in adjacent to BLM lands that have a sensitive species of squirrel. BLM lands now become extremely important for the squirrels long term viability, yet BLM did not even know about the development until notified by the public. How can you manage for a species when you do not consider what has happened and is likely to happen on neighboring lands? This incident will need to be considered in the RMP/EIS analysis.
- Priority habitats need to be made high priorities for Fire Suppression. Ways to protect shrub steppe habitats must be explored in the RMP and the best methods adopted. Rare shrub steppe obligates cannot tolerate a large loss of habitat to fire. Overgrazing results in short-term fire spread rates and in long-term cheatgrass that converts habitat to a short interval fire regime of mostly weeds.
- All lands within the range of the northern spotted owl need to be considered under the Northwest Forest Plan and have the inventories as required by the plan. Arbitrary decisions by managers have prohibited this in the past and the law and intent of the plan must be followed.
- Sagegrouse supplementation as was done on the Spokane District needs NEPA analysis before being done. You essentially planted a non-local species, an exotic that can reduce viability of the local grouse. In no case is it a remedy for poor habitat conditions. It makes no sense to plant birds unless the habitat is good enough to support them. Spokane habitat should have been evaluated in terms of quality and connectivity with Douglas County and Yakima sagegrouse populations. Supplementation is a last resort.

- The RMP needs to address how BLM will be able to monitor habitat with methods sensitive enough to detect meaningful change. How will you monitor often enough to allow for management changes that will be effective in improving conditions for the grouse? In the case of the pygmy rabbit population numbers fell drastically and swiftly and the species was beyond the point of recovery by the time anyone knew it. No actions changed on the last known habitat occupied by pygmy rabbits and now they are gone. There were pygmy rabbits at BLM's Sulfur Canyon 20-30 years ago, but now they are gone. Would Sulfur Canyon still have pygmy rabbits if it was ungrazed and managed for optimum habitat value? It only makes sense that when you do not know, and a species is in trouble, you do not graze every reasonably flat acre and that is what is being done with the sagegrouse at this time. How will BLM buffer against contributing to the extinction of the species? This should be done by buffering against doing harm, err on the side of healthy plant communities and native animals. Hold out large pieces of habitat as ungrazed and reduce grazing utilization on the rest by reducing cattle numbers on the grazed portions. If Fish and Wildlife says to manage for a grass height of 7 inches, manage for 14 inches, the greater native grass height the better. Manage for historical conditions on most of habitat suitable for sagegrouse. Improve habitat wherever possible. Manage to mimic natural occurring historical events; this is not easy given that there were no large ungulates historically present. Do small area rest rotation as it best mimics historical conditions. Graze in patches, not entire holdings. Do not graze during nesting periods to avoid putting hens off nests. You must establish the point of view that if it did not happen historically it is not good for the grouse and other shrub steppe obligate species. Management priorities change and managing for red meat production is a very low priority at this time.
- Ranchers need to know that their grazing privileges can be revoked at any time for needed habitat improvement. The ten year lease period needs to be discontinued, otherwise BLM is locked into a grazing plan when conditions warrant immediate changes i.e. sagegrouse numbers decline, drought and climate change effects.
- A clear plan for management based on climate change needs to be established and included in the RMP. Until this spring, Washington shrub steppe areas have been in a very long-term drought and management did not change. The days are gone when an agency can manage by whim or not at all. There needs to be clear indicator limits for soil moisture and drought that lead to changes in grazing AUM's and intensity and duration. It needs to be verifiable on paper and on the ground that the change took place. The "perfect storm" has arrived and BLM needs to plan for it.

- Do not tolerate abuses of the grazing privilege. Tell the ranchers up front what the penalties will be for grazing in closed areas, grazing too many cows or overgrazing. Make them do some work and be responsible. Tell them exactly what the situation is for the shrub obligate species and that misuse will not be tolerated.

How should the BLM manage public lands with consideration of uses of adjacent lands given the mixed ownership pattern in the planning area? BLM lands in the planning area consist of scattered tracts and isolated blocks varying in size from a few acres to over 19,000 contiguous acres. These tracts and blocks are adjacent to and intermixed with private lands, other state and federal public lands and Tribal lands. Uses or activities on BLM or adjacent lands can affect or conflict with uses and activities on the other. It is usually not possible to accomplish landscape level management objectives without complementary management across ownerships. In many areas, BLM lands are the only public lands available; and thus, there is a high demand for multiple and sometimes conflicting uses within the limited area.

- There needs to be analysis done to determine the current and potential habitat value for all BLM lands. Scattered tracts may be key to recovery of shrub steppe species. Fencing of BLM lands surrounded by private lands will need to be evaluated and fencing may be needed where indicated. I have seen cases where sagegrouse nest on high quality habitat adjacent fence lines separating agency lands from private CRP or crop lands. No BLM land, regardless of size, should be summarily rejected without analysis of habitat value. This will require a piece-by-piece habitat evaluation for each parcel. All analysis and conclusions will need to be thoroughly explained.
- A cost-benefit analysis of cost for a one-time buyout of grazing leases with important shrub steppe habitat needs to be done.
- A cost-benefit analysis of costs for administering grazing leases versus lease monies derived for all leases. Taxpayers need to know that the leases are heavily subsidized.
- Detail the laws and regulations that govern leases.
- Small parcels offer some edge effect values and this needs to be evaluated.

How should the BLM manage multiple uses and resources that have changed, or that occur on lands that were either not administered by the BLM or were not within the planning area when the current RMP was developed? The BLM has acquired more than 130,000 acres of land in the planning area since 1987. Additionally, there is no RMP for public lands administered by the BLM in the San Juan Archipelago.

- ➢ Follow existing law, policy and direction. The RMP must show all applicable law and policy that is applied to the decision process and managing BLM lands. It needs to

show what the laws are and where they are referenced. A table like matrix would be good, showing the direction, law or policy , BLM interpretation of the law or policy and how the different management alternatives reflect the policy or law.

- A short list of the laws and policy would be:
  - NEPA laws
  - 6840 policy
  - Multiple Use and what it means
  - Endangeered Species Act
  - BLM Special Status Policy for Bureau Endangered, Threatened and Sensitive Species
  - BLM Policy for Candidate Species and when and why the law has changed i.e. in 2008 (as Bush was on the outs) a decision was made to designate Federal Candidate Species as BLM Sensitive Species. BLM Sensitve Speces management is done on a case-by-case basis, whereas before they were managed as if they were listed.
  - The Comb Wash Decision of the IBLA and what it means and how it is applied.
  - BLM Ecosystem Management
  - BLM Manages for Biodiversity
  - Internal Columbia Basin Ecosystem Management Project and how the science is being applied
  - BLM Policy for management of special status plants and animals
  - Taylor Grazing Act
  - 75% of Riparian Area must be in Proper Functioning Condition
  - If < 5% of watershed federal, no watershed plan, >5 % requires watershed analysis. Duffy Douglas BLM lands exceed 5%, according to the EIS for the last RMP. Where is that watershed plan?
  - Gap Analysis for Biodiversity
  - Riparian Initiative for the 90's
  - Fish and Wildlife 2000
  - State Wildlife and Heritage Plans
  - Management Recommendations for Washington's Shrub steppe John T. Morgan and Tracy Lloyd. Washington Department of Wildlife.
- Multiple use does not allocate amounts to be utilized, there is nothing that says an area must be grazed, or what level of grazing utilization must be allowed. Manage by policy and follow the law. At this time, BLM land should be managed for maximum habitat values for

shrub steppe obligate species anything else violates 6840 policy. Sagegrouse habitat value needs to be maximized not reduced to allow grazing.

- Win-win is not BLM policy or law. Follow direction, policy and law, not the path of lease resistance conflict or the law of inertia.
- A complete analysis for habitat connectivity needs to be done. How can Douglas County BLM and private lands be connected to the Sagegrouse population on the Yakima Firing Center? A plan needs to be developed to make this possible, regardless of acquisition cost, a biologist wish list needs to be developed and options for funding pursued.

How should the BLM facilitate energy development while still allowing for multiple uses and appropriate protection of public lands and resources? If the BLM is to provide opportunities for energy (renewable and non-renewable) development to include associated transmission lines and pipelines, it must also provide protection for other resources such as visual, cultural and habitat values.

Multiple use policy does not designate uses or degree of use. First ask, how many solar panels on individual homes would be needed to meet the same demand for energy. Obviously, BLM cannot be adversely impacting sagegrouse and other sensitive species through it's management and at the same time follow it's 6840 policy and the law. All energy proposals need to be evaluated for impacts, nothing is pre-determined. Douglas County PUD had it right when they dropped plans for a wind power site that would have impacted sagegrouse leks. They said, " we do not want to be the ones to make the sagegrouse extinct." What type and degree of use can be tolerated? For grazing and most projects there is no mitigation. It is almost always a take situation. The only mitigation for grazing is to have ungrazed lands of the same habitat value. Native species of all kinds would benefit from a lack of grazing disturbance or no wind towers. NEPA policy says, projects must not contribute to listing; there cannot be a win-win in most cases. Win-win is something BLM managers learn at Interior leadership school, it has nothing to do with biology or policy.

You need to define collaborative decision making/management. Do you consider the WRAC a collaborative unit? How about the District or area office? How will the manager figure into the decision-making? How do you plan to come to consensus? Managers, in the past, have said that collaborative decision-making and management is against the law and they would not do it. Has the law changed? Where is the policy for this? For it to be truly collaborative, the manager should be a guide in the process, not the final decision maker.

The BLM must explain how it will avoid management bias in making a land or resource decision? There needs to be quantitative standards developed for all uses of the public lands within the analysis area for each alternative of the DEIS.

For example, livestock grazing needs to have measurable and specific outcomes for all impacts caused by domestic livestock. Here are some recommended standards that need to be included in all alternatives in the RMP/EIS:

- Upland plant communities: an annual minimum height for perennial bunchgrasses of 7 inches and a maximum annual utilization by weight (confirmed by clip and weigh methodology) of preferred forage species of 30%.

- Woody browse: utilization (not to exceed 15% of new leader growth within reach of livestock).

- Riparian zones (including springs, fens, bogs, wet meadows and riparian aspen clones): trampling from all causes not to exceed 10% of hydric and mesic soil areas and a minimum greenline stubble height after grazing by livestock of 7 inches.

The BLM Oregon and Washington Rangeland Health Standards and Guidelines will need to be included in the RMP/DEIS.

At this time Range Health data collection methods do not provide measurements that are representative of the population to be measured. They are not randomly placed and dispersed within the population to be sampled. There are no confidence intervals expressed, without confidence intervals the actual value of the average may exceed thresholds for management such as, sage grouse habitat grass height guidelines and utilization guidelines for grasses. Range health monitoring at the present time is mostly meaningless. You cannot speak of an average in a meaningful way without random placement of plots/transects, nor can you address and average without enough of plots/transects.

Therefore the BLM must include in its analysis specific methodologies for all livestock and landscape health monitoring along with the time intervals for those measurements.

One of the standards for range health is appropriate levels of native plants and animals are present. Please, define appropriate levels of plants and animals. The sage grouse is present in appropriate numbers? The Washington ground squirrel? Thompson's Clover? Or how about the pygmy rabbit?

The RMP/DEIS needs to analyze how forage is allocated between watershed health, grazing wildlife including insects, mammals and birds and livestock.

At one time there were BLM Ecosystem Health Guidelines. They came out about the same time as the Range Health guidelines why has range health emphasized and not ecosystem health? This needs to be included in your list of BLM sources policy and evaluated in your analysis. It is pretty obvious that Range Health was instituted and ecosystem health ignored.

Grazing lands within a lease consist of BLM and private lands. Cattle operations are often said to be dependent on BLM lands for their survival. Yet BLM does not inventory vegetation values and animals on the private lands. BLM has had to inventory and include private lands in analysis when projects used government money (which is the case with grazing leases) or were dependent on BLM lands for project feasibility (a powerline project). The private lands were included in NEPA analysis. Currently, federally funded Fire Wise projects on private land require NEPA analysis prior to implementation. Please explain why grazing leases do not require analysis of private land? How can BLM manage for special status species when we do not know what the effects of grazing are on private lands? How can you do a Range Health Determination? The scope of the RMP analysis needs to be explained.

COMMENTS SPECIFIC TO COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

All RMP alternatives need to be evaluated and ranked by ecosystem and biodiversity sustainability, special status and shrub steppe obligate sustainability and your reasoning needs to be explained. It is fine to do the same for grazing sustainability.

Climate change must be defined, analyzed and evaluated in terms of cumulative effects. BLM's policy on climate change needs to be presented and all alternatives evaluated in terms of it.

In the EIS responses to questions from interest groups or individuals must be provided, and supported by policy/law and biology. Science needs to support all responses. Statements must be supportable, not individual or even group opinion. Peer reviewed research citations must be included.

EIS Alternatives

The following reasonable and useful alternatives need to be included in the analysis of the draft EIS.

A no grazing alternative.

A 50% reduction from current livestock grazing.

A 75% reduction from current livestock grazing.

All possible grazing methods need to be considered and analyzed, not just those that allow higher utilization levels.

All vegetation restoration projects in each alternative must be analyzed for effects on all resources. CRP provides habitat for sage grouse and needs to be analyzed before restoration projects are done.

In all alternatives please define a person's right to a spiritual connection to the land and it's plants and animals. There are recognized spiritual sites on BLM land within the RMP area. Non-native as well as indigenous spiritual sites need specific and thorough consideration under all alternatives.

Native Americans have rights to collect and hunt on these lands; effects on Native American rights need to be analyzed for all alternatives.

Please include these comments in the record for this process and please maintain Western watersheds project on the mailing list throughout the development process for this RMP/EIS.

Sincerely,

Jon Marvel

Jon Marvel
Executive Director

Lower Columbia Basin Audubon Society
A CHAPTER OF THE NATIONAL AUDUBON SOCIETY
P.O. Box 1900 • Richland, WA 99352

RECEIVED
JUL 14 2010
Bureau of Land Mgmt.
Spokane District

July 12, 2010

Mr. Robert Towne
Bureau of Land Management Spokane District Office
1103 N. Fancher Road
Spokane Valley, WA 99212

REFERENCE: EASTERN WASHINGTON AND SAN JUAN RESOURCE MANAGEMENT PLAN SCOPING COMMENTS

Dear Mr. Towne

We are writing to provide scoping comments for the development of the Eastern Washington and San Juan Resource Management Plan scoping process.

The Lower Columbia Basin Audubon Society (LCBAS) is primarily, but far from exclusively, focused on the welfare of bird species in the Columbia Basin. Birds cannot thrive without the habitat that provides opportunity for nesting, breeding, and feeding. A thriving shrub steppe habitat is essential to the survival of many plant and animal species in Eastern Washington.

This letter is focused on the Juniper Dunes Forest Management Area, but the concerns apply to any area where shrub steppe may be negatively impacted by concurrent or conflicting uses including grazing, and oil and gas exploration, and in particular, Off Road Vehicles (ORVs).

Loss of shrub steppe habitat and the resulting decline in food sources have already contributed to the measurable decline in ferruginous hawk numbers in Eastern Washington. Ferruginous hawks are very sensitive to disturbance from humans and have been known to abandon nests if there is too much human activity nearby. This habitat also supports Burrowing Owls and Sharp Tailed Grouse (Federal Species of Concern); Sage Sparrow and Sage Thrasher (State Species of Concern) and the Sage Grouse (State Threatened). Along with these bird species are many other species of plants, animals, insects, and reptiles.

Juniper Dunes supports a high density of raptor species and is considered crucial nesting habitat for Ferruginous and Swainson's Hawks; a substantial portion of the entire state's ferruginous hawks nest and breed in this area.

The LCBAS requests that the land use analysis for the Juniper Forest Management Area, and other areas where shrub steppe is declining, place a strong emphasis on preservation of habitat supporting these sensitive bird species and the plant and animal communities necessary for them to thrive.

We would suggest the following for consideration in land use analyses:

- Land use separation in space, such as restricting ORV use to existing roads and trails, and keeping other activities away from nesting and breeding areas with a buffer.

- Land use separation in time, such as more extensively restricting other uses within a more substantial spatial buffer during nesting and breeding seasons.

- Preservation of habitat used by a species of concern (state, federal, threatened, endangered) should be considered critically important in the land use analysis. We would suggest an analysis item in which the BLM would consult with the agency coordinating the species recovery. This consultation would then be integrated into a recovery plan and provide for land use management with a priority on species recovery and maintenance.

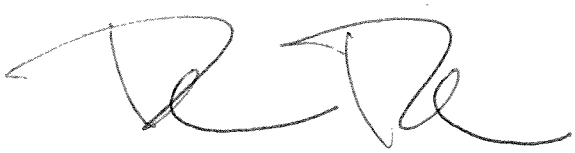
- Leasing strategies for oil and gas exploration, and for grazing and other uses, that contractually (where there is a contract) require compliance with time and space based activity limitations in land use

- In the potential land use conflicts between ORV's and wildlife, please consider a plant to use education and outreach to ORV riders. We do believe many riders love and respect the habitat as much as we do, but may be unaware of how their activity can negatively impact the areas they like to be in, along with all of the wildlife there.

- The impacts of wind power development – both construction impacts and ongoing operation - on or near BLM lands, as wind power has documented impacts to birds and other wildlife.

- Develop a process for analyzing "land exchanges" where BLM might be excessing some parcels to consolidate in other areas. The LCBAS strongly believes that blocking up large areas of habitat is important for the welfare of wildlife. One option that should be considered for excessed areas is that they be assessed at for their current value and offered for preservation by another group or entity rather than considered only for development.

Thank you for your time and consideration.



Robin Priddy
President
Lower Columbia Basin Audubon Society

Eastern Washington

Public-at-Large

05/04/2010 09:50 AM

To OR_Spokane_RMP@blm.gov
cc
bcc
Subject Eastern WA and San Juan RMP

History: This message has been replied to.

Please add my e-mail address to your contact list for this project.

Also, is there a particular reason you have not scheduled any "scoping" meetings here in Spokane. A lot of the users of your lands in central WA live here in Spokane and ride on those lands.

Thanks,

05/11/2010 08:58 PM

Please respond to

To <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Scoping Comments

Rankville ORV recreation area: NW4, W2NE4, NWSE, of sec 2, T11N, R20E. This property, together with the SW4 of sec 2 owned by Vernon Rank is known to the ORV community as Rankville "The Slab" and is located north of the Roza Canal and west of Cheyne Road. Presently the areas is being accessed from the Roza Canal. What makes this area so critical for the ORV community is that before the trails on the forest open in the summer, Rankville it is the only area in Yakima County for Yakima area recreationists to go to ride their off road motorcycles and ATV's. Should this area be lost, to go ride would require an 80+ mile drive to Juniper Dunes outside of Tri-Cities or to Saddle Mountain outside of Mattawa.

This area has been heavily used by ORV's for the last 50 years and is never used for grazing or other purposes. The Yakima Valley Dust Dodgers Motorcycle and ATV Club adopted this area years ago to maintain and take care of the property. Each year, Dust Dodgers organize a clean-up day and all the garbage is picked up and hauled to the landfill at Club expense. Due to the efforts of the Dust Dodgers and the All Wheels Off Road club, that area is the cleanest section of land in the area. In addition, we have worked with the neighboring landowners to repair fencing and post "No Trespassing" sign to help limit trespassing on neighboring properties by the motoring public.

It is critical that the Resource Management Plan identify and manage this area as a ORV recreation area. The plan needs to include obtaining legal access to Cheyne Road. Access could be obtained by either obtaining an easement or purchasing land to the east of the above property.

[redacted]

05/13/2010 03:08 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
Recreational Rock hounding and it\'s associated activities should be made part of the RMS. That outdoor activity should clearly be included in final documents as a permitted use.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: _____ Organization: _____

Do you want your personal information withheld? ☒ YES ☐ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

I'm very concerned about the target shooting on the Fishtrap allotment. I feel there should be a designated area for target shooting only. Multiple use is fine but the abuse to the resource is unacceptable. The destruction to brace posts & fences make them unrepairable on an annual basis in some places. Also hundreds of pounds of brass are scattered on the ground in many places. Then the biggest issue is the safety of other folks and livestock and wildlife.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip [redacted]

Email Address: _____ Organization [redacted]

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Do you (BLM) expect the parameters/regulations of grazing leases and/or permits to change with this plan? ie: recreational uses on grazing lands

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: [redacted] Organization: _____

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

ACCESS IS MY BIG ITEM. FIX IT!

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot gu

First and Last Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Email Address: _____ Organization: _____

Do you want your personal information withheld? ☑ YES ☐ NO

Preferred method of contact: ☑ Email ☑ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☑ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

My area of interest is Juniper Forest

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

06/04/2010 06:13 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
BLM should provide protection for known and existing recreational lands while improving and expanding access to those resources which lack basic access points for the public. An example of this would be the Juniper forrest area in Franklin County

Preferred method of contact is email.
Preferred method of contact is US Postal Mail.
Preferred RMP/EIS format is a paper copy.

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

RECEIVED
JUN 09 2010
Bureau of Land Mgmt.
Spokane District

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: _____ Organization: [redacted]

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

MY CONCERNS ARE NUMEROUS BUT MAINLY ABOUT ACCESS TO MY PRIVATE PROPERTY ON PALMER MT OKANOGAN CO. I PURCHASED THE LAND TO RETIRE ON AND ALSO AS AN INVESTMENT IN 1992 AND ENJOYED ACCESS UNTIL BLM CLOSED THE ROAD FOR MOTOR VEHICLES, AS FAR AS I KNOW THE ROAD HAS ALWAYS BEEN OPEN TO THE PUBLIC EVEN AFTER THE CATTLE-MEN CLOSED IT WITH A GATE, BUT ANYONE WHO USED THE ROAD COULD ANYTIME HE OR SHE WANTED TO. NOW ITS A DIFFERENT STORY NOW THAT BIG BROTHER HAS STEPPED INTO THE PICTURE. THE LAW IS ON OUR SIDE BUT BLM DOESN'T SEEM TO CARE. THE LAND IS WORTHLESS WITHOUT OUR MOTORIZED ACCESS. THIS MEANS I WILL NOT ONLY NOT RECOVER MY INVESTMENT BUT WILL LOSE MY RETIREMENT HOME. I PRESENTLY HAVE AN ACCESS PERMIT BUT ACTUALLY SHOULDN'T NEED ONE AS THE ROAD HAS BEEN USED FOR A 100 YRS. ITS TOO LATE IN MY LIFE NOW TO START OVER AS I'M 67 YRS SO I HOPE WE CAN RESOLVE THIS ISSUE. ALL I WANT IS ACCESS TO MY PRIVATE MT HOME BE IT THROUGH A LOCKED GATE OR NOT, I DON'T CARE. [redacted]

THANKS

If you dre mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

James Scott Pavey/SPFO/OR/BLM/DOI
06/22/2010 12:56 PM

To OR Spokane RMP@BLM
cc
bcc
Subject Fw: RMP input

****
Scott Pavey
Planning and Environmental Coordinator
Spokane District (509) 536-1252

----- Forwarded by James Scott Pavey/SPFO/OR/BLM/DOI on 06/22/2010 12:55 PM -----

06/21/2010 04:07 PM

To "Pavey, John" <Scott_Pavey@blm.gov>
cc
Subject RMP input

BLM Spokane District Office
1103 N. Flancer Rd.
Spokane Valley, WA, 99212

Attention: Scott Provey

I want to thank you for allowing an input at this stage of the Resource Managemnet Plan for the state of Washington.

As a rockhound my major concern it access to various recreational collecting sites. As many rockhounds are elderly it is very important to be able to drive close to an area for collecting speciums. This is a hobby that gets many people outdoors and able to enjoy the great northwest.

There are a number of collecting sites in Eastern Washington, some on BLM land in addition to Forest Service, state and private lands, and each with their own rules.
I would like the RMP to address the access and rules associated with adjacent land ownership (management) regarding the rockhound hobbyist and our collecting sites. Various rock clubs could help in identifying collecting sites in the different regions in addition to the Washington State Mineral Council members.

06/14/2010 08:37 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
Access needs to be provided BLM lands. Juniper Dunes and Rankville, near Zillah are 2 areas that I am aware of with questionable access. When new lands are aquired access should be obtained with the new land. Land that has no current legal access needs to be opened up to the public.

Keep the public informed of what is going on. When you receive emails from the public but them in a data base and send informtion when appropriate. It\'s our land, help us to work with you on manageing it.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

Sir,

My name is [redacted] and I own a Patented mining claim in the RMP area. I purchased this land as a investment for my retirement. I am very concerned about changes in land use that may be changed by the RMP. Please keep me informed per your form enclosed.

Thanks, [redacted]

06/15/2010 07:51 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
I would like to share an interest in an area of BLM land that is south of Interstate 82 and west of Kiona. There is only one designated mountain biking area in the Tri-cities area that provides any gravity assisted riding, refered to as \"State Patrol\". The problem we(mountain bikers) have here is that there is a growing number of people in our cycling community that are attracted to the gravity side of mountain biking, which includes \"downhilling\", jumping, and riding stunts. Some have taken it upon themselves to build jumps and stunts at State Patrol. The issue is that State Patrol is all private land and that with the building of these stunts the landowners will start to worry about lawsuits and close the area down to riding. We would like a designated mountain bike area where we can build some gravity assisted trails with some considerable vertical drop. The location I mentioned earlier is a great spot for this kind of riding area. Thank you for your consideration.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/17/2010 10:18 AM

To <or_spokane_rmp@blm.gov>
cc
bcc
Subject OR_Spokane_RMP@blm.gov

History: This message has been replied to.

Hello, the public meeting in Ellensburg in was on June 12th, and the comment deadline is on June 25. Thirteen days is not a long enough comment period. Is this even legal ? It needs to be expanded to at least 30 Thanks,

06/18/2010 12:11 PM

To <or_spokane_rmp@blm.gov>
cc
bcc
Subject RE: OR_Spokane_RMP@blm.gov

History: This message has been replied to.

Who reads the Federal Register ? How many would have been interested in providing input, but did not recieve a letter ? Running a one shot newspaper ad is going to miss alot of people. This is a matter of regional, even national significance with the sagegrouse presence. Will there be another period for comment or is this it ? Just because no comment period is specified for an RMP, does not mean that it should be any less than for an EIS. Obviously, there was some reasoning behind a 30 day comment period. If an interested party attended the E'burg meeting and that was the first contact, they would only have 13 days to comment. The comment period should be 30 days for them, not 13. I think that this was not thought through and will not stand up in appeal. Did your ad get in all papers in the state ? I doubt it. What about westside papers ? How did you define your audience ?

> From: OR_Spokane_RMP@blm.gov
> Subject: Re: OR_Spokane_RMP@blm.gov
> To:
> Date: Thu, 17 Jun 2010 17:01:26 -0700
>
> The public scoping/comment period began on April 30, 2010, when the Notice
> of Intent was published in the Federal Register. This notice specified
> that scoping comments would be accepted until June 25, 56 days total.
> Within a few days of publication of this notice , we mailed approximately
> 1,200 newsletters to interested parties notifying them of the scoping
> period dates and the upcoming public meetings. This information and the
> newsletter are available on our website.
>
> CEQ regulations require public scoping for an EIS, but do not specify a
> time period or require public meetings. We chose to conducted the public
> meetings to provide information to the public about BLM and our planning
> process.
>
> Please let me know if you have any other questions.
>
>
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>
[redacted]

> > To
> <or_spokane_rmp@blm.gov>
> 06/17/2010 10:18 cc
> AM
> Subject
> OR_Spokane_RMP@blm.gov
>
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>
> Hello, the public meeting in Ellensburg in was on June 12th, and the
> comment deadline is on June 25. Thirteen days is not a long enough comment
> period. Is this even legal ? It needs to be expanded to at least 30
> Thanks,
>

06/18/2010 11:20 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

ddress:

Comments:

I am a rockhound and would like to keep public lands available for collecting it is a legitimate recreational activity and should be legal on BLM land. Specifically areas like Saddle Moutain. But including all areas so that multiple types of recreation are possible. It would be helpful for those of us that try to abide by the law if you would make it easier to determine were the public lands are so that we can avoid private land. Please do not let a few bad eggs cause you to manage public lands by closing them.

Thank You.

[redacted]

Preferred method of contact is US Postal Mail.
Preferred RMP/EIS format is download from the BLM website.

RECEIVED
JUN 22 2010
Bureau of Land Mgmt.
Spokane District

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: [redacted] rganization: GOLD HILL PROPERTY OWNERS

Do you want your personal information withheld? ☒ YES ☐ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

I WOULD LIKE TO SEE BLM CONTINUE TO USE GRAZING AND TIMBER HARVEST AS PART OF THE MANAGEMENT PLAN.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

06/23/2010 08:50 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Comments:
With respect to the Saddle Mountain Unit please maintain and expand access for multi-use recreational users and resolve ownership issues in this area for public clarity.

Maintain and recognize rockhounding as a legitimate recreational pursuit on all State BLM lands.

Management of public lands by closure or unwarranted habitat designation is not acceptable or justified.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

RECEIVED

JUN 23 2010

Bureau of Land Mgmt.
Spokane District

15 June 2010

Bureau of Land Management
Spokane District Office

Public Scoping Comments for
Revised Resource Management Plan (RMP/EIS)

BLM - Administered Public Lands in Eastern Washington
and in the San Juan Archipelago

News Release No.OR130-FY2010-010

Comments Submitted by

[redacted]

Comments are both general and specific in nature with a bias towards public recreational use of the property(s). Comments are open and shall be submitted into the BLM administrative public record for this (RMP/EIS).

General Discussion:

For the purpose of establishing comments on land use principals that will ultimately become a basis for public policy, both the mission statement of the governing body and the definition of the planning process that will create the public policy should be the guide for such comments.

Much to my surprise I was not able to locate any document from the BLM that provided a specific definition of a Resource Management Plan (RMP). Inspection of the Glossary of Terms and Acronyms contained in the BLM document titled "Land Use Planning Handbook (H-1601-1)" failed to produce a written definition of a Resource Management Plan (RMP/EIS). It seems unfathomable to me that an agency could seek to create a plan to establish public policy when there appears to be no formal written definition of that plan. The explanation of the RMP listed under definitions contained herein I found in of all places on the Wilderness Society's website which has a large section specifically on the BLM planning process and the RMP.

In general, I concur with the BLM's mission statement of multiple use of public lands to provide a benefit now and in the future to the American people.

The BLM as a whole has a vast array of avenues that can effect land use decisions. Most notable is the congressional directive of the Federal Land Policy and Management Act of 1976 (FLPMA), The National Environmental Policy Act (NEPA) of 1969, The National Landscape Conservation System (NLCS), The Special Recreation Management Area (SRMA) and others.

With all the underlying regulation in existence for management of public lands, there appears to be lacking or little evidence of a "Best Management Practices" (BMP) or what is termed "the best use practice" for public lands. Best use practices would be site specific and would also include multiple use components as well as key management directives for recreation access and environmental stewardship.

For example, a BLM property contains a large lake that is at a high elevation and supports a viable fish habit. The property in question has a standing history of local people fishing the lake. The area around the lake holds grasslands that are excellent for grazing. The best use designation for this property would be for sport fishing and land grazing. A conflicting land use decision would be to install a boat ramp that allows large sport boats to water ski across the lake disrupting the best use components and degrading the water quality.

"The best use practice" involving multiple properties - it is possible for one property to be played off another and against each another. The example of a large contingent of cross-country skiers are confluent to a specific property that is flat in nature and has wide spread vistas. Another group of snowmobilers are confluent to a property that is hilly has many trees and has ample parking. The best use practices method would suggest the local population would be directed to one property or the other depending if they were snowmobilers or cross-country skiers.

For the purpose of establishing the "Spokane RMP/EIS" I request that the BLM properties under consideration include a "Best Management Practices" (BMP) methodology for the establishment of the twenty to twenty-five year land use management plan.

Recognition of Existing, Historic and Current Land Use Policy:

A long-standing land use policy known as "existing, traditional and historic use of land" is held in both case law and public domain law throughout the west. This policy is simplistic in nature and holds a clearly defined understanding that land used in a traditional and historic function form or manner should be and will be used in a similar manner fashion and condition.

Examples of this land use policy are found in agricultural issues where existing and traditional land use is being re-aligned in the face of expanding and continued development. One example is the case of an animal producer that operates a farm outside of town. A large housing developer builds a city

sub-division near the farm. The new residents complain of the smell and noise of the farm operation and go to court to cease the farm operation. Using the "existing, traditional and historic use of land" the court held the land used for farm operations as a "existing, traditional and historic use of land" prevailed over the sub-division development of the land.

Other examples of changing land use are: A large tract of land is used for a small airport flying small private planes. The airport contains a flying club that has used the land for a number of years. The land changes ownership the new owner converts the runway to a drag strip for auto racing. The flying club maintains the "existing, traditional and historic use of land" is for aviation not for auto racing.

This example could be used in reverse with the land existing and traditional use being used for auto racing, the land changes ownership and is now is to being used for aviation.

For the purpose of establishing the "Spokane RMP/EIS" I request that the BLM properties under consideration include and use the policy of "existing, traditional and historic use of land" methodology for the establishment of the twenty to twenty-five year land use management plan.

De-Conflicting Simultaneous Seasonal Multiple Land Use Activities:

The task of consideration for simultaneous multiple land use activities is difficult at best and is progressively more difficult as more and more people use the public lands for more and more selected activities.

This continuing upward spiral of land use by the public can continue to the point of saturation. At the point of saturation the land and the facilities begin to experirance degradation at all levels. A strategy used in other countries around the world to de-conflict simultaneous multiple land use activities is to introduce a seasonal use methodology based on a specific public activities.

This style of management would follow and perhaps improve the mission statement of the BLM that states in part "Management is based upon the principles of multiple use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife habitat, wilderness, air and scenic quality, as well as scientific and cultural values".

The public comments contained in this document are aimed towards recreational use and activities. Since the Eastern Washington lands solicited for this RMP / EIS generally experience no mineral extraction, mining or drilling activities the de-conflicting of simultaneous multiple land use activities is suggested for recreational and land grazing use.

Example: The seasonal use concept would provide a loosely structured format for activities that would be considered seasonal in nature. The activities for this example are hunting, bird watching, equestrian horse riding, grazing animal units, stargazing, skiing, fishing, hiking and habit resource work.

A specific property would suggest the guidance for land use based on the season of use. This would not be considered a general regulation, but would be encouraged by the BLM.

Spring Season: April - June

1. Bird watching
2. Fishing
3. Hiking
4. Star gazing
5. Horse back riding
6. Habit resource work

Summer Season: July – September

1. Hiking
2. Star gazing
3. Horse back riding
4. Grazing

Fall Season: October – January

1. Hunting
2. Star gazing
3. Hiking

Winter Season: January – March

1. Fishing
2. Skiing
3. Bird watching

A seasonal land use conflict would be for one to be engaging in a hunting activity and encounter a large group of people on horseback. This would be a problem. Or to be conducting habit resource work and then to encounter grazing animals foraging on the newly restored habit.

For the purpose of establishing the "Spokane RMP/EIS" I request that the BLM properties under consideration include and use a de-conflicting function that allows for seasonal land use activities determined by "a sport, a recreational activity, a state or federal harvest season, a vegetation grazing unit season and any other activity priority" methodology for the establishment of the twenty to twenty-five year land use management plan.

Specific Public Land of Concern:

The specific property of concern for me that is contained in the BLM Spokane District Management Area is the Rock Creek Ranch, also known as the Escure Ranch. The Rock Creek property is somewhat unique in the fact that public had recreational access for many decades before the ranch was sold to the BLM in August of 1999. As a result, members of the public are able to observe any changes in the recreational use or condition of the property from a working ranch to public property.

The Escure Ranch history is truly remarkable as the owners; the Escure brothers John and Marcus are original homesteaders from Europe who established the sheep ranch in the early 1900's.

The uncondional commitment the Escure brothers had for the Ranch property was NOT to go the route of development and marketing in the fashion of an outdoor recreation enterprise with parking lots, boat launches, horse barns and the overall effect of a dude ranch. What John and Marcus had envisioned by selling the Ranch to the BLM was to maintain the property in the same and similar fashion that had existed for the last one hundred years.

As a Sportsman I have hunted waterfowl and upland game on the Rock Creek Ranch since the 1970's. Some of my earliest memories are that of being on the ranch during the fall and winter and having experienced a spectacular array of scenery and events.

The location of the ranch, as part of the Pacific Migratory flyway is a very important element to area sportsman. Migrating waterfowl use the area for its remote location and the access to cultivated fields for feed. This provides an outstanding opportunity to sportsman. The flowing water of Rock Creek after all standing water has frozen provides excellent habit for migrating waterfowl.

As the State of Washington continues with building and development any land that is available and accessible to sportsman's for hunting activity has become less and less over the years. Washington

State Fish and Game Department can attest to the drop in hunting licenses sold over the decades. This I believe is directly do in part to the enormous loss of land open to hunting.

What will ultimately be the final disposition of recreational hunting activities in the Untied States I believe will mostly likely go the way of Europe, where private hunting clubs exist only for the wealthy and affluent using private ranches and ranch raised game.

With the vision of people like the Escure brothers and having the governmental agency of the BLM upholding there mission statement, this kind of scenario will not occur in these United States.

Beneficial Overall Success of the RMS/EIS Decisions:

A true, accurate and complete measure of success of the over all RMS/EIS plan for Eastern Washington as described with in these comments would be the fact that I could take a younger family member hunting on the Rock Creek Property twenty or twenty-five years from now on a cold snowy windy day in December and still experience the same or similar landscape and outdoor experience that I have experienced on the Rock Creek property since the 1970's.

BLM Land Purchases – Spokane Area:

1991 - Lakeview Ranch, Pacific Lake plus Crab Creek, Lincoln County, 9,600 acres. Cost: $1 million.
1992 - Miller Ranch at Fishtrap Lake in Lincoln County, 8,000 acres. Cost: $2.5 million.
1993 - Crab Creek, Fishtrap Lake, near Twin Lakes, Lincoln County, 12,000 acres. Cost: $2 million.
1995 - Twin Lakes Ranch in Lincoln County, 12,000 acres. Cost: $3 million.
1997 - Coffee Pot Lake area in Lincoln County, 5,000 acres. Cost: $2 million.
1998 - Huckleberry Mountains in southern Stevens County, 5,000 acres. Cost: $2.5 million.
1999 - Escure Ranch in Adams and Whitman counties, 12,300 acres. Cost: $2.6 million.

RMS\EIS Footnotes:

Contravention: An uncanning but very true factual element that exists with the ownership and management of public lands, owned by the government. This element is the fact that **"just because it belongs to the government and is public land does not mean it is open to the public".**

Nowhere is that more illustrated then in this article (See Enclosed) from the Okanogan Chronicle Newspaper about access to Palmer Mountain. While I am not familiar with this particular dispute, the fact that the county has joined in the lawsuit with the adjacent property owner to re-establish the opening of the road to Palmer Mountain clearly defines a violation of the "existing, traditional and historic use of land" that is held in both case law and public domain law throughout the west.

The average person would believe that the sole intent of the county to join this suit is for the representation of the publics interest in this property, not a singular or secular interest that would produce a only a benefit to the county and not the public at large, concerning access to Palmer Mountain.

RMP - Public Meeting: A presentation meeting to discuss and explain the Resource Management Plan (RMP) was held in the town of Davenport WA on 17 May 2010 by the BLM Spokane office staff. The meeting was held in a local hall with about twenty members from the public in attendance.

The meeting appeared to represent a good cross section of stakeholders involved in Eastern Washington public lands. Interest by members of the public included grazing, hunting, sportsman, equestrian horseman, scenic rivers and habit restoration. The BLM staff was attentive and produced considerably maps, charts and diagrams about the RMP process. None of the BLM staff in attendance had any business cards for a follow up contact and were notified that this information would help to the RMP process.

Definitions:

Resource Management Plan (RMP):

The BLM considers resource management plans to be synonymous with land use plans so the terms may be used interchangeably. Land use plan decisions made in RMP's establish goals and objectives for resource management (such as desired future conditions), the measures needed to achieve these goals and objectives, and parameters for using public lands. Land use planning decisions are usually made on broad scale and customarily guide subsequent site-specific implementation decisions.

BLM Description:

The Bureau of Land Management (BLM), an agency established in 1946 through consolidation of the Grazing Service and the General Land Office, and has exclusive responsibility for about 60 percent of all Federal, civil, and defense administered lands. Although the primary policy of the Bureau has been land retention and multiple-use--management, the passage of the Federal Land Policy and Management Act of 1976 strengthened and redefined this role. Now strongly worded legislation very explicitly states that a basic policy of the Bureau will be management of environmental values including, among others scenic resources. The Bureau's visual resource management (VRM) system is an analytical process, which identifies and sets objectives for maintaining scenic values and visual quality.

BLM Mission Statement:

The Bureau of Land Management is responsible for stewardship of our public lands. The BLM is committed to manage, protect and improve these lands in a manner to serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife habitat, wilderness, air and scenic quality, as well as scientific and cultural values.

TITLE 43--PUBLIC LANDS
CHAPTER 35--FEDERAL LAND POLICY AND MANAGEMENT
SUBCHAPTER I--GENERAL PROVISIONS

Sec. 1702. Definitions:

Without altering in any way the meaning of the following terms as used in any other statute, whether or not such statute is referred to in, or amended by, this Act, as used in this Act—

(a) The term ``areas of critical environmental concern'' means areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.
(b) The term ``holder'' means any State or local governmental entity, individual, partnership, corporation, association, or other business entity receiving or using a right-of-way under subchapter V of this chapter.
(c) The term ``multiple use'' means the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with

consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.
(d) The term ``public involvement'' means the opportunity for participation by affected citizens in rulemaking, decision making, and planning with respect to the public lands, including public meetings or hearings held at locations near the affected lands, or advisory mechanisms, or such other procedures as may be necessary to provide public comment in a particular instance.
(e) The term ``public lands'' means any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except-- (1) lands located on the Outer Continental Shelf; and (2) lands held for the benefit of Indians, Aleuts, and Eskimos.
(f) The term ``right-of-way'' includes an easement, lease, permit, or license to occupy, use, or traverse public lands granted for the purpose listed in subchapter V of this chapter.
(g) The term ``Secretary'', unless specifically designated otherwise, means the Secretary of the Interior.
(h) The term ``sustained yield'' means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.
(i) The term ``wilderness'' as used in section 1782 of this title shall have the same meaning as it does in section 1131(c) of title 16.
(j) The term ``withdrawal'' means withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land, other than ``property'' governed by the Federal Property and Administrative Services Act, as amended (40 U.S.C. 472) \1\ from one.

END – Nothing Further

06/23/2010 02:19 PM

To <or_spokane_rmp@blm.gov>
cc
bcc
Subject RE: OR_Spokane_RMP@blm.gov

Right on ...thanks for the flexibility.

> From: OR_Spokane_RMP@blm.gov
> Subject: RE: OR_Spokane_RMP@blm.gov
> To:
> Date: Wed, 23 Jun 2010 12:26:41 -0700
>
> The Federal Register Notice says that we we will accept comments up to 30
> days after the last public meeting. Therefore, we will accept comments
> through July 12, 2010.
>
> **********
> Scott Pavey
> Planning and Environmental Coordinator
> Spokane District (509) 536-1252
>
>
>
>
>
[redacted]
> > To
> <or_spokane_rmp@blm.gov>
> 06/18/2010 12:11 cc
> PM
> Subject
> RE: OR_Spokane_RMP@blm.gov
>
>
>
>
>
>
>
>
>
>
> Who reads the Federal Register ? How many would have been interested in
> providing input, but did not recieve a letter ? Running a one shot
> newspaper ad is going to miss alot of people. This is a matter of
> regional, even national significance with the sagegrouse presence. Will
> there be another period for comment or is this it ? Just because no

> comment period is specified for an RMP, does not mean that it should be any
> less than for an EIS. Obviously, there was some reasoning behind a 30 day
> comment period. If an interested party attended the E'burg meeting and
> that was the first contact, they would only have 13 days to comment. The
> comment period should be 30 days for them, not 13. I think that this was
> not thought through and will not stand up in appeal. Did your ad get in
> all papers in the state ? I doubt it. What about westside papers ? How
> did you define your audience ?
>
>
>
> > From: OR_Spokane_RMP@blm.gov
> > Subject: Re: OR_Spokane_RMP@blm.gov
> > To:
> > Date: Thu, 17 Jun 2010 17:01:26 -0700
> >
> > The public scoping/comment period began on April 30, 2010, when the
> Notice
> > of Intent was published in the Federal Register. This notice specified
> > that scoping comments would be accepted until June 25, 56 days total.
> > Within a few days of publication of this notice , we mailed approximately
> > 1,200 newsletters to interested parties notifying them of the scoping
> > period dates and the upcoming public meetings. This information and the
> > newsletter are available on our website.
> >
> > CEQ regulations require public scoping for an EIS, but do not specify a
> > time period or require public meetings. We chose to conducted the public
> > meetings to provide information to the public about BLM and our planning
> > process.
> >
> > Please let me know if you have any other questions.
> >
> >
> >
> >
> >
> >
> >
> >
> >
[redacted]
> > > To
> > <or_spokane_rmp@blm.gov>
> > 06/17/2010 10:18 cc
> > AM
> > Subject
> > OR_Spokane_RMP@blm.gov
> >
> >
> >
> >
> >

> >
> >
> >
> >
> >
> > Hello, the public meeting in Ellensburg in was on June 12th, and the
> > comment deadline is on June 25. Thirteen days is not a long enough
> comment
> > period. Is this even legal ? It needs to be expanded to at least 30
> > Thanks,
> >
>

06/23/2010 07:44 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Stree Address:

Comments:
Dear Sir,

It is important for me and my extended family members, that BLM to consider rockhounding as one of the issues to be addressed within the plan. We request that BLM preserve rockhounding recreational activities on all BLM lands.

In the early 1950\'s, our family went with our parents on rock hunting and collecting outings. I enlisted into the Air Force in 1954, for a military career, and my own family grew up with rock hunting for a major family activity. I felt that this was what kept the ten children close and away from drugs. I have found the places I once hunted is now private land or no rock hunting allowed on public land.

I feel that management of public lands by closure is not acceptable way to do business and still call them public. With my disability from the military, long hikes with rock hunting equipment or riding horses is out of the question. I need to be able to drive near the rock hunting site and take my grandchildren and great grandchildren.

One of the near by places, is the Saddle Mountain area, that our local rock and mineral club utilizes. This place allows for family units to spend the day together.

We hope you will maintain and expand access for multi-use recreational users in the Saddle Mountain unit and resolve ownership issues for public clarity.

We, also hope you will maintain and recognize rockhounding as a

legitimate pursuit on all state BLM lands.

Thank you for the opportunity to comment and would appreciate notification of any changes in the rules.

Sincerely,

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

EMAIL EMAIL

07/07/2010 07:53 PM

To <or_spokane_rmp@blm.gov>
cc
bcc
Subject Open lands?

Mr. Scott Pavey
BLM
Spokane Office

Dear Sir,
I am a rockhounder, and rockhounding brings me great pleasure. It gets me outdoors where I can get lots of exercise and enjoy the wonders of nature. It stimulates my brain as I study the geology of the various types of rocks and minerals and the locations in which I find them. It affords me great peace of mind, as the hobby takes me away from my daily stresses and brings me together with people who share a similar interest.

Your new planning process is of interest and concern to me because I would hope that collecting locations like Saddle Mountain near Mattawa, WA as well as abandoned mines in Ferry and Stevens counties will continue to be accessible to me and my rockhound friends in the future. We use our cars and trucks to get to these spots as most of us are a bit older and need a bit of help getting up those hills these days. Those few of us still young enough to walk the distance still need cars to transport kids to these locations along with all their stuff.

We don't ask for much. Just let us continue to collect where we do now, keep the existing roads open and that will suit us just fine.

We appreciate the opportunity to comment and would appreciate the heads up if there are any changes in collecting rules.

Sincerely, [redacted]

[redacted]

RECEIVED

JUL 08 2010

Bureau of Land Mgmt.
Spokane District

1. Adjacent land owners need to be included in a fire management plan. Juniper dunes riding area needs to be closed during fire season. When a fire enters the wilderness area it is never stopped until it reaches the privet land owners property. To allow use on a July 4th with a 30 mph winds is scary and crazy.
2. When a life is in danger immediate access into a wilderness needs to be allowed, this includes a motorized vehicle. In an emergency time cannot be wasted seeking permission.
3. Weeds and pests need to be controlled. With modern technology, spot control by aerial applications of crickets and noxious weeds can be safely applied without harming the surrounding environments. By eliminating the largest area, you then have a chance to work on the smaller areas.
4. Permits need to be issued for the ORV riding area at Juniper Dunes. This will accomplish five things:
    a. This would give the proper route into the riding area eliminating harassment of surrounding property owners.
    b. Hawk nesting areas can be identified and closed during nesting season.
    c. This could prevent over use before it becomes a serious problem, by limiting the number of riders on a given weekend.
    d. You can implement fire danger closures quickly.
    e. A paper trail of those using this area would also help prevent illegal activities and fences from being cut.
5. Better communication with surrounding land owners is important.
6. Discussions about improving habitat for threatened species should involve surrounding land owners and users.

Spokane area RMP comments by

[redacted]

07/12/2010 08:34 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor S eet Address:
[redacted]

Comments:
The Columbia River Basin is one of the most highly prospect, though yet unproven, gas-producing areas in the lower 48 states. Between 1998 and 2007 over 700,000 acres of federal owned minerals were under oil and gas lease in Washington, and 300,000 acres in Northern Oregon.

Millions of dollars have been paid to federal, state, county and private landowners in bonus and rentals over that period, as well as millions of dollars spent on the four deep wells drilled in Washington. Seismic activity is on-going and more tests are expected to prove the natural gas resource in the Basin.

Many of the 10-year term leases issued from 1998 to 2000 have expired, which cover some of the most highly prospect geological sturctures. Leases on private and state lands are still in effect and it is imperative that federal lands be made available for oil and gas leasing as they expire or are terminated. There are approximately 70,000 acres in these areas which should be made available for the competitive bid process.

It should be noted that the four wells drilled were located on private lands, but it is important that cohesive blocks of federal, state and private lands can be assembled to control exploration and development activities.

Please give this request consideration in the Resource Management Planning process to open the lands for leasing and keep this valuable prospective energy source alive until it is proven or disproven. Thank you.

Preferred method of contact is email.
Preferred RMP/EIS format is a paper copy.

12 July 2010

BLM Spokane District Office **ATTN: RMP**
1103 N. Fancher Rd.
Spokane Valley, WA 99212

RECEIVED
JUL 13 2010
Bureau of Land Mgmt.
Spokane District

Hello

It is summer and fire season again in Chelan County...and federal and state lands are on fire and people are being evacuated from their homes. Smoke from the wildfire is bad enough to cause some people to have problems breathing.

My grandsons are volunteer firefighters with Chelan County Fire District#8. They have been called to fight the wildfire now burning on BLM land in Swakane Canyon.

The Entiat Community Wildfire Protection Plan
(http://www.cascadiacd.org/files/documents/Entiat_CWPP_Final_Document.pdf)
was approved by the WA State Forester in 2007. The Entiat Community Wildfire Protection Plan (CWPP) identifies the Wildland Urban Interface based on best available Wildland fire science and past fire behavior and history. It also prescribes future ecosystem (fuels) management.

I would like BLM to work with Chelan County Fire District#8 and local landowners to implement the CWPP. For my neighborhood (Crum), the
"**Future Ecosystem Management**: Washington Department of Natural Resources has timber harvest planned. Thinning and treatment of fuels is planned by the Bureau of Land Management and United States Forest Service. Prescribed underburning of natural fuels in planned by the USFS along with future NEPA analysis."

My neighbors and I are interested having the shrub steppe ecosystem restored with prescribed fire across WDFW, private (behind the deer fence) and federal boundaries. In particular, I would like to see underburning in BLM lands in T25NR20E Sections 2 and1 and T25NR21E Section 34.

"PLANNING FOR HAZARD MITIGATION ON NON-PRIVATE LANDS
"Eight per cent of the CWPP land area is privately owned; the remaining 92% is controlled by various government agencies. This simple fact makes is obvious that hazard mitigation by the government agencies will be far more influential at protecting: 1) Entiat's citizen's, 2) Entiat's homes, 3) Entiat's essential infrastructure, 4) Entiat's areas of community importance and 5) Entiat's resources from the destruction of catastrophic wildfire than the influence of the private landowners. Effective, community-supported projects will require science-based planning augmented by local knowledge and data and timely implementation. Therefore, this CWPP will respectfully recommend that the government agencies implement ecosystem management activities to restore condition class. Our specific recommendations include:

"Local governments:

Chelan County and City of Entiat Zoning should require safe, year-round ingress and egress for emergency services. City of Seattle and Chelan PUD should manage wildlands with the objective of moving them towards condition class 1, restoring terrestrial and aquatic ecosystems and disturbance regimes and reducing invasives. Both entities should work collaboratively with the local community to improve condition class on intermingled lands. Chelan PUD should recognize that this CWPP is identified by NOAA-Fisheries as a short term recovery action for Upper Columbia Salmon and steelhead; it would appear appropriate to utilize Mid Columbia HCP funds to implement CWPP projects. Urban areas should be managed as special areas of community importance with an objective of community social and economic vitality.
Entiat CWPP believes Columbia Breaks Fire Interpretive Center is providing an important service for ecosystem restoration and CWPP goals. Entiat CWPP encourages Chelan County, City of Entiat and Chelan PUD to support CBFIC in every way possible. Cascadia Conservation District, Chelan PUD, WSU Extension, Columbia Breaks Fire Interpretive Center and Fire District#8 should continue to provide Firewise workshops and expertise for private landowners.

"State governments:
WDFW and DNR should manage wildlands with an objective of reducing fuels and moving them towards condition class 1, restoring terrestrial and aquatic ecosystems and disturbance regimes and reducing invasives. Both entities should work collaboratively with the local community to improve condition class on intermingled lands. Priority would be: DNR Priority 1) Mud/Potato WUI Assessment Zone, DNR Priority 2) Tyee/Hornet WUI Assessment Zone, DNR Priority 3) Tillicum WUI Assessment Zone, DNR Priority 3) Crum WUI Assessment Zone, DNR Priority 4) Mesa/Oklahoma WUI Assessment Zone; WDFW Priority 1) Crum WUI Assessment Zone, WDFW Priority 2) Mesa/Oklahoma WUI Assessment Zone. WDFW should recognize that this CWPP is identified by NOAA-Fisheries as a short term recovery action for Upper Columbia Salmon and steelhead; it would appear appropriate to utilize Mid Columbia HCP funds to implement CWPP projects. WDFW should also recognize the economic and social impact on the local community when fire closures restrict/eliminate hunting opportunities or fisheries. WDFW should develop a plan that recognizes that such closures are inevitable and pro-actively plan for alternate opportunities (including high hunt and waters open to fishing) to mitigate local economic and social impacts. Entiat CWPP believes Columbia Breaks Fire Interpretive Center is providing an important service for ecosystem restoration and CWPP goals. Entiat CWPP encourages WDFW and DNR to support CBFIC in every way possible. DNR should continue to provide Firewise workshops and expertise for private landowners.

"Federal governments:
BLM, USF&WS and USFS should manage wildlands with an objective of reducing fuels and moving them towards condition class 1, restoring terrestrial and aquatic ecosystems and disturbance regimes and reducing invasives. BLM, USF&WS, NOAA-Fisheries, BPA and USFS should work collaboratively with the local community to improve condition class on intermingled lands. BLM Priority would be: BLM Priority 1) Mud/Potato WUI Assessment Zone, BLM Priority 2) Tyee/Hornet WUI Assessment Zone, BLM Priority 3) Tillicum WUI Assessment Zone, and BLM Priority 3) Crum WUI Assessment Zone. USF&WS Priority would be: USF&WS Priority 1) Tillicum WUI Assessment Zone, USF&WS Priority 2) Tyee/Hornet WUI Assessment Zone, USF&WS Priority 3) Crum WUI Assessment Zone. USFS planning Priority would be: USFS Priority 1) Tyee/Hornet WUI Assessment Zone, USFS Priority 2) Mud Potato WUI Assessment Zone, USFS Priority 3) Swakane Breaks WUI Assessment Zone USFS Priority 4) Tillicum WUI Assessment Zone, USFS Priority 5) Mills/Roaring WUI Assessment Zone, USFS Priority 6) Silver/Lake WUI Assessment Zone, Tommy WUI Assessment Zone, Cottonwood/North Fork WUI Assessment Zone, Upper Mad WUI Assessment Zone, Preston/Stormy WUI Assessment Zone and Upper Entiat WUI Assessment Zone.

"BLM, USF&WS, NOAA-Fisheries, BPA and USFS should also recognize the economic and social impact on the local community due to fires; such as the short term impact when fire closures restrict/eliminate hunting opportunities or fisheries or recreation and the long term impact of the loss of economic benefit from burned lands and resources. BLM, USF&WS, NOAA-Fisheries and USFS should cooperate with WDFW to develop a plan that recognizes that such closures are inevitable and pro-actively plan for alternate opportunities (including high hunt and waters open to fishing) to mitigate all local economic and social impacts.

"USF&WS and NOAA-Fisheries should act on the fact that this CWPP is identified by NOAA-Fisheries as a short term recovery action for Upper Columbia Salmon and steelhead; it would appear appropriate to utilize Mid Columbia HCP funds to implement CWPP projects.

"Entiat CWPP believes Columbia Breaks Fire Interpretive Center is providing an important service for ecosystem restoration and CWPP goals. Entiat CWPP encourages BLM, USF&WS, NOAA-Fisheries, BPA and USFS to support CBFIC in every way possible.

"BLM, USF&WS, NOAA-Fisheries, BPA and USFS overarching decisions for actions or non-action should be science-based while incorporating local history, data and conditions. Entiat community support for science-based decisions includes total support for fully funding and revitalizing Entiat Experimental Forest---the watershed with the world's longest period of scientifically collected data following wildland fire and its effects.

"Federal decisions should be collaborative with the Entiat community while not encumbering project planning with redundant or oppressive paperwork. Community support is support for actions which improve conditions not support for plans which take long periods of time to develop if new information is not required. In this vein, the Entiat CWPP supports the science-based actions which will lead to forests with large green trees and abundant, clean water while limiting catastrophic fires and providing for Entiat community's social vitality and robust economy.

"Entiat community has spent more than 15 years working on a watershed plan and the Entiat CWPP supports the science-based riparian areas documented in the 1989 Wenatchee Forest and Land Management Plan rather than the riparian reserves in the Northwest Forest Plan or PACFISH/INFISH which do not have a basis in science.

"Entiat community does not support converting any acres currently identified as *matrix* (or any similar designation) into any type of *reserve* (or any similarly restrictive designation). Community opinion and experience is that *reserves* are not leading towards large green trees, abundant, clean water nor limiting destruction of catastrophic fires nor providing for Entiat community's social vitality and robust economy. This opinion is reflected in PNW General Technical Report 651, *Northwest Forest Plan—The First 10 Years (1994-2003): Synthesis of Monitoring and Research Results* and its companion general technical reports.

"Entiat community understands and supports the need for roadless areas but feels a conflicting pull with needing to get into these areas for fire suppression or active ecosystem management. Further discussion is needed to provide agreement on reconciling these conflicting values. Thus, Entiat CWPP supports Appendix C roadless areas identified in the 1989 Wenatchee Forest and Land Management Plan with the exclusion of the Entiat Experimental Forest. Entiat CWPP does not support any expansion

of roadless areas identified in the 1989 Wenatchee Forest and Land Management Plan Appendix C because analysis of fire history and potential fire behavior shows catastrophic wildfire will occur in these areas and threaten 1) Entiat's citizen's, 2) Entiat's homes, 3) Entiat's essential infrastructure, 4) Entiat's areas of community importance and 5) Entiat's resources with destruction. Analysis also shows that the risk could be reduced with vegetative or fuels management. Further, Entiat CWPP wants roads to be defined by on-the-ground presence and not limited to presence in a data base.

"Wilderness designation implements even more restrictions than roadless designation. Entiat CWPP does not endorse additional acres designated as wilderness within the Entiat CWPP boundary because analysis of fire history and potential fire behavior shows catastrophic wildfire will occur in these areas and threaten 1) Entiat's citizen's, 2) Entiat's homes, 3) Entiat's essential infrastructure, 4) Entiat's areas of community importance and 5) Entiat's resources with destruction. Analysis also shows that the risk could be reduced with vegetative or fuels management.

"Federal planning should include ensuring adequate access for public recreation in special places, ecosystem restoration and fuels reduction and fire suppression. This would include BPA stopping erosion on their power line rights of way and routinely maintaining their roads for easy access and control of erosion and invasives.

"Identifying, planning and developing ways to augment summer water yields for people and fish are an identified need in the Entiat Watershed Plan and Entiat CWPP. Thus, the Entiat community does not support any designations that would encumber planning or implementing water yield augmentation which could include additional water storage. Entiat CWPP does not support the currently proposed Wild and Scenic River designation for the Entiat River and does not support any additional proposed Wild and Scenic River designations in the Entiat watershed. The Entiat community has never supported a proposed Wild and Scenic River designation for the Entiat River; public meetings during the 1988 SEIS process were very contentious in the Entiat community. Entiat community's rationale for not designating any waters include: the identified need for augmenting summer streamflows in the watershed with storage as one solution; the additional processes required for proposed wild or scenic waters will not provide any more protection than the rivers already have but will add unnecessary time and paperwork to planning; the portion of the Entiat River that is proposed recreational designation was channelized after the 1948 flood and thus does not meet the criteria; and the thought that scenery is the outstandingly remarkable characteristic of the proposed wild and scenic river when the view will be black snags if the designation goes thru and actions to restore the ecosystems and reduce fuel loadings are not allowed or effective with catastrophic fire being the result of no action. Overarching federal planning should include vegetation management that would increase water yield by reducing vegetation density or manipulating vegetation to increase snowpack; both of which are demonstrated to increase water yield."

Thank you for allowing me to comment on identifying issues for the BLM Spokane District Resource Management Plan

[redacted]

Ps Please send me a hardcopy of future RMP-related documents. Thank you

San Juan Archipelago

Other Federal Agencies

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

RECEIVED

JUN 21 2010

Bureau of Land Mgmt.
Spokane District

June 17, 2010

RBT

Robert Towne
District Manager
Spokane District Office
Bureau of Land Management
1103 North Fancher Road
Spokane Valley, Washington 99212

Re: Scoping Comments the draft Eastern Washington and San Juan RMP/EIS
EPA Region 10 Project Number: 10-026-BLM

Dear Mr. Towne:

The U.S. Environmental Protection Agency (EPA) has reviewed the Bureau of Land Management (BLM) Notice of Intent (NOI) to prepare a draft Resource Management Plan (RMP)/Environmental Impact Statement (EIS) for Eastern Washington and San Juan Planning Area in Washington State. The National Environmental Policy Act (NEPA) and Clean Air Act (CAA) §309 require EPA to review and comment in writing on the environmental impacts associated with all major federal actions.

According to the NOI, BLM proposes to analyze potential environmental impacts of a proposal to replace the existing Spokane RMP and include the San Juan Islands in the new RMP. The planning area would encompass 445,000 acres of public land within BLM's Spokane District. Because of the extent of the planning area, the draft RMP/EIS should clarify whether or not the new RMP/EIS would serve as a comprehensive planning framework that would guide development of future individual plans and projects. Individual plans or projects tiered to the RMP/EIS should be subject to separate NEPA analysis and review to insure issues specific to each subsequent action can be fully analyzed and mitigation measures identified.

The NOI identifies preliminary issues and planning criteria that will be addressed in the draft RMP/EIS analysis. In addition to these, we offer the attached scoping comments to inform BLM of issues that EPA believes are significant and that should be addressed as the draft RMP/EIS analysis moves forward. If you have questions about our comments, please contact me at (206) 553-6322.

Sincerely,

Theogene Mbabaliye
Environmental Review and Sediment Management Unit

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EPA Scoping Comments on the proposed Eastern Washington and San Juan RMP/EIS

Purpose and Need

The draft RMP/EIS should clearly identify the underlying purpose and need to which BLM is responding to in proposing the alternatives, including the broader public interest and need. The purpose of the proposed action would typically be the specific objectives of the new RMP/EIS, while the need for the plan may be to eliminate a broader underlying problem or take advantage of an opportunity. Thus, the purpose and need should be a clear, objective statement of the rationale for the proposed action, as it provides the framework for identifying the RMP/EIS alternatives.

Range of Alternatives

The draft RMP/EIS should include a range of reasonable alternatives that meet the stated purpose and need for the draft RMP/EIS and that are responsive to the issues identified during the scoping process. The Council on Environmental Quality (CEQ) recommends that all reasonable alternatives be considered, even if some of them could be outside the capability of the applicant or the jurisdiction of the agency. Also, the environmental impacts of the proposal and alternatives should be presented in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. The potential impacts of each alternative should be quantified to the greatest extent possible. EPA encourages selection of feasible alternatives that will minimize environmental degradation.

Environmental effects

The draft RMP/EIS should include environmental effects and mitigation measures. This would involve delineation and description of the affected environment, indication of resources that would be impacted, the nature of the impacts, and a listing of mitigation measures for the impacts. The following topics are of particular interest to EPA.

Water resources

Water quality degradation is one of EPA's primary concerns. Section 303(d) of the Clean Water Act (CWA) requires the state of Washington and Tribes with approved water quality standards to identify water bodies that do not meet water quality standards and to develop water quality restoration plans to meet established water quality criteria and associated beneficial uses. The draft RMP/EIS should disclose which waters might be impacted, the nature of potential impacts, and specific pollutants likely to impact those waters. It should also report those water bodies potentially affected by the draft RMP/EIS that are listed on the State's and Tribes' most current EPA-approved 303(d) lists. The draft RMP/EIS document should describe existing restoration and enhancement efforts for those waters, how the draft RMP/EIS will coordinate with on-going protection efforts, and any mitigation measures that will be implemented to avoid further degradation of water quality within impaired waters. Please note that antidegradation provisions of the CWA apply to those water bodies where water quality

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standards are currently being met, and prohibit degrading water quality. The draft RMP/EIS evaluation should indicate how the antidegradation provisions would be met.

Public drinking water supplies and/or their source areas often exist in many watersheds. Source water areas may exist within the proposed planning area. Source water is water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are delineated and mapped by the state for each federally-regulated public water system. The 1996 amendments to the Safe Drinking Water Act (SDWA) require federal agencies to protect sources of drinking water for communities. Because of that, state agencies have been delegated responsibility to conduct source water assessments and provide a database of information about the watersheds and aquifers that supply public water systems. Since projects under the RMP/EIS may impact sources of drinking water, EPA recommends that BLM contact the Washington State Department of Ecology to help identify source water protection areas within the planning area. The draft RMP/EIS should identify all:

(a) Source water protection areas within the project area.
(b) Activities that could potentially affect source water areas.
(c) Potential contaminants that may result from the proposed project.
(d) Measures that would be taken to protect the source water protection areas.

As the planning of the draft RMP/EIS continues, BLM should evaluate the impacts roads would have on waterbodies in the planning area. Specifically, roads contribute more sediments to streams, interrupt the subsurface flow of water, especially where roads cut into steep slopes, may fragment habitats and disturb wildlife, and accelerate noxious weed infestations. The draft RMP/EIS should include data about existing road networks and evaluate the change in road miles and density that will occur because of the proposed RMP/EIS projects and predicted impacts to water quality by roads. The draft RMP/EIS should note that, under the CWA, any construction project disturbing a land area of one or more acres requires the National Pollutant Discharge Elimination System (NPDES) permit for discharges to waters of the U.S. The draft RMP/EIS should document the plan's consistency with applicable storm water permitting requirements and should discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality.

The draft RMP/EIS projects that would involve construction of facilities and access roads may also compact the soil, thus changing hydrology, runoff characteristics, and affecting flows and delivery of pollutants to water bodies and ecological function of the area. The draft RMP/EIS should include a detailed discussion of the cumulative effects from this and other projects on the hydrologic conditions within the planning area. The document should clearly depict reasonably foreseeable direct, indirect, and cumulative impacts to groundwater and surface water resources. For groundwater, the potentially affected groundwater basin(s) should be identified and any potential for impacts to springs or other open water bodies and biologic resources should be analyzed.

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Wetlands and riparian areas

The draft RMP/EIS should describe all waters of the U.S. that could be affected by alternatives, and include maps that clearly identify all waters within the planning area. The document should include data on acreages and channel lengths, habitat types, values, and functions of these waters. Projects affecting waters of the U.S. would need to comply with CWA §404 requirements. Section 404 regulates the discharge of dredged or fill material into waters of the U.S., including wetlands and other special aquatic sites. The U.S. Army Corps of Engineers issues Section 404 permits.

If anticipated projects under the RMP/EIS would involve discharge of dredged or fill material into waters of the U.S., the draft RMP/EIS would need to include information regarding alternatives to avoid the discharges or how potential impacts caused by the discharges would be minimized and mitigated. This discussion would include the following elements:

(a) Acreage and habitat type of waters of the U.S. that would be created or restored.
(b) Water sources to maintain the mitigation area.
(c) Re-vegetation plans, including the numbers and age of each species to be planted, as well as special techniques that may be necessary for planting.
(d) Maintenance and monitoring plans, including performance standards to determine mitigation success.
(e) Size and location of mitigation zones.
(f) Parties that would be ultimately responsible for the plan's success.
(g) Contingency plans that would be enacted if the original plan fails.

Mitigation should be implemented in advance of the impacts to avoid habitat losses due to the lag time between the occurrence of the impact and successful mitigation.

Activities affecting floodplains are also regulated under Section 404 of the CWA and Executive Order 11988, *Floodplain Management*. Floodplains perform a vital function of conveying and dissipating the volume and energy of peak surface runoff flows downstream. Periodic flood flows form and sustain specific habitat types such as wetland and riparian areas. The RMP/EIS should therefore include information on any activities that could occur in floodplains, what alternatives were considered, and steps to be taken to reduce impacts to floodplains. Because of their importance, unimpaired flood flows within floodplains should be preserved and flood-related damage to downstream resources should be prevented.

Vegetation and Habitat

Because the proposed plan may have impacts on fish and wildlife habitat, and habitat connectivity, the RMP/EIS should describe the current quality and potential capacity of habitat, its use by fish and wildlife, and identify known fish and wildlife corridors, migration routes, and areas of seasonal fish and wildlife congregation. The RMP/EIS should also evaluate effects on fish and wildlife from habitat removal and alteration, aquatic and terrestrial habitat fragmentation caused by roads, land use, management activities, and other human activity. The evaluation should also include impacts on plant species and their habitats.

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Grazing is a common activity in many watersheds and its management has been contentious due to potential impacts on water resources and vegetation, particularly in riparian areas. The concerns with degraded riparian zones following grazing include loss of biodiversity, wildlife habitat, adverse impacts to water quality, and negative affects to fish populations. Riparian zones with stable streambanks reduce, for example, sediment load to streams. This is critical for fish spawning, which is an important factor for the recovery of declining and endangered species such as salmonids. The draft RMP/EIS should therefore discuss grazing impacts to riparian zones and how grazing will be managed to promote biodiversity - a vital component of healthy ecosystems. Information on habitat and vegetation types where grazing could be permitted should be used to develop a grazing management strategy that would ensure sustainable use of rangelands in the planning area. The draft plan should include a map of areas that could be subject to grazing so potential conflicts with other uses can be determined and measures to reduce them and other impacts identified.

Because of activities under the proposed RMP/EIS, invasive species could also aggressively spread into newly opened up areas. The RMP/EIS should include existing BLM direction for noxious weed management, a description of current conditions, and best management practices that will be utilized to reduce the likelihood of introduction and spread of invasive species in the planning area. The measures to reduce impacts due to noxious weeds should be consistent with *Executive Order 13112* on Invasive Species.

Air quality impacts

The draft RMP/EIS should provide a detailed discussion of ambient air conditions (baseline or existing conditions), National Ambient Air Quality Standards (NAAQS), and criteria pollutant non-attainment areas in the planning area and vicinity. The analysis should estimate emissions of criteria pollutants for the planning area and discuss the timeframe for release of these emissions over the lifespan of the proposed plan. The draft RMP/EIS document should also include analyses of the potential impacts to air quality (including cumulative and indirect impacts) from associated projects, particularly those involving construction activities. The draft RMP/EIS should specify emission sources and quantify them. Such an evaluation is necessary to assure compliance with State and federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality. The draft RMP/EIS should include the following:

(a) Detailed information about ambient air conditions, NAAQS, and criteria pollutant non-attainment areas in all areas considered for the airport and adjacent areas.
(b) Data on emissions of criteria pollutants from the proposed project and discuss the timeframe for release of these emissions.
(c) Specific information about pollutant from mobile sources, stationary sources, and ground disturbance. This source specific information should be used to identify appropriate mitigation measures and areas in need of the greatest attention.
(d) An Equipment Emissions Mitigation Plan that identifies actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and NOx associated with construction activities.

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Endangered Species Act (ESA)

Evaluation of the draft RMP/EIS should identify the endangered, threatened, and candidate species under ESA, and other sensitive species within the project area. The draft RMP/EIS should describe the critical habitat for the species; identify any impacts the draft RMP/EIS will have on the species and their critical habitats; and how the draft RMP/EIS will meet all requirements under ESA, including consultation with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA). The RMP/EIS may need to include a biological assessment and a description of the outcome of consultation with the USFWS under Section 7 of the ESA. BLM actions should promote the recovery of declining populations of species.

Cumulative Effects

Because BLM lands are often intertwined with a mix of other privately, state, and federally owned lands, the draft RMP/EIS should assess cumulative effects by analyzing the effects of past, present and reasonably foreseeable plans and projects proximate to the planning area and its vicinity. Where adverse cumulative impacts may exist, the draft RMP/EIS should disclose the parties that would be responsible for avoiding, minimizing, and mitigating those adverse impacts. EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found online:
http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf.

We will assess whether the RMP/EIS's cumulative effects analysis include:

a) Resources, if any, that are being cumulatively impacted.
b) Appropriate geographic area and the time over which the effects have occurred and will occur.
c) All past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern in the planning area.
d) A benchmark or baseline.
e) Scientifically defensible threshold levels.

Climate change effects

Currently, there is concern that continued increases in greenhouse gas emissions resulting from human activities contribute to climate change. Effects of climate change may include changes in hydrology, sea level, weather patterns, precipitation rates, and chemical reaction rates. The draft RMP/EIS document should therefore consider how resources affected by climate change could potentially influence the draft RMP/EIS and vice versa, especially within sensitive areas. Also, the draft RMP/EIS should quantify and disclose greenhouse gas emissions from potential activities under the plan and discuss mitigation measures to reduce emissions.

Recreation and Access

The impacts from recreation and access should be analyzed and reported in the RMP/EIS. Impacts such as those from off road vehicle use result in habitat destruction, increased sedimentation to water bodies, noise and air pollution. The RMP/EIS should disclose all impacts

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associated with such activities and describe what actions will be taken to manage recreational and accessibility opportunities in the project area.

Coordination with Tribal Governments

If projects under the RMP/EIS would affect any Tribe's resources, then the RMP/EIS document should describe the process and outcome of government-to-government consultation between BLM and each of tribal government involved, issues that were raised, if any, and how those issues were addressed. Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the U.S. government-to-government relationships with Indian tribes.

Environmental Justice and Public Participation

The draft RMP/EIS should include an evaluation of environmental justice populations within the planning area. If such populations exist, the draft RMP/EIS should address the potential for disproportionate adverse impacts to minority and low-income populations, and the approaches used to foster public participation by these populations. Assessment of the plan's impact on minority and low-income populations should reflect coordination with those affected populations. One tool available to locate Environmental Justice populations can be found online at: http://www.epa.gov/enviro/ejl.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations, allowing those populations a meaningful opportunity to participate in the decision-making process.

Monitoring

Because projects under the RMP/EIS could potentially impact a variety of resources in the planning area for an extended period, we recommend that the RMP/EIS projects be designed to include an environmental inspection and mitigation monitoring program to ensure compliance with all mitigation measures and assess their effectiveness. The RMP/EIS should describe the monitoring program and how it would be used as an effective feedback mechanism so that any needed adjustments can be made to projects under the new RMP/EIS to meet environmental objectives.

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San Juan Archipelago

Native American Tribes

LOWER ELWHA KLALLAM TRIBE

ʔəʔɬx̣ʷə nəxʷsƛ̓ay̓ əm "Strong People"

2851 Lower Elwha Road
Port Angeles, WA 98363

(360) 452-8471
Fax: (360) 452-3428

(M)

March 22, 2010

RECEIVED

MAR 25 2010

Bureau of Land Mgmt.
Spokane District

Robert B. Towne
District Manager
Bureau of Land Management
1103 N. Fancher Road
Spokane Valley, Washington 99212-1275

Re: San Juan Archipelago Resource Management Plan (RMP)
Initiation of Government - to - Government Coordination

Dear Mr. Towne:

Thank you for the opportunity to provide comment on the San Juan Archipelago Resource Management Plan (RMP). This proposed undertaking is located within the Traditional Lands of the Lower Elwha Klallam Tribe as identified in the Treaty of Point No Point between the Lower Elwha Klallam Tribe and the U. S. Government. In the Treaty of Point No Point the Lower Elwha Klallam Tribe allowed non-Klallam settlement within its ancestral lands, but retained important rights. Among the retained rights are those relating to the cultural and spiritual practices of the Lower Elwha Klallam people.

Several federal mandates and tribal resolution 28-07 allow the Lower Elwha Klallam Tribe to actively manage significant cultural resources on project lands and to those areas that may be subject to a project's potential effect. Federal & Tribal requirements for cultural resource management include identification, evaluation, preservation, protection, and program review. Under the National Historic Preservation Act of 1966 (NHPA) as amended all ground disturbing project activities utilizing federal funding require Section 106 compliance, and its implementing regulations, 36CFR800. The Lower Elwha Klallam Tribe strongly supports this Federal legislation and has passed Tribal Resolution 28-07 for the protection of its own archaeological and cultural resources. Our goal is to preserve and protect in perpetuity the culture and history of the Lower Elwha Klallam people for future generations.

The Lower Elwha Klallam Tribe recommends that the Bureau of Land Management provide the Tribe a current contact list for the proposed undertaking. Should you require further assistance please contact myself at (360) 452-8471 ext. 163. Thank you again for the opportunity to work with your agency in protecting the cultural resources of the Lower Elwha Klallam Tribe.

Sincerely,

William S. White
Archaeologist, MA
Cultural Resources Protection
Lower Elwha Klallam Tribe

cc: Frances Charles, Tribal Chairwoman
Business Council, Lower Elwha Klallam Tribe
Sonya Tetnowski, Chief Executive Officer
File

San Juan Archipelago

State Agencies

Rex Derr
Director

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JUL 01 2010
Bureau of Land Mgmt.
Spokane District

STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
1111 Israel Road SW • P.O. Box 42650 • Olympia, Washington 98504-2650
(360) 902-8500 • Washington Telecommunications Relay Service at (800) 833-6388
www.parks.wa.gov

June 25, 2010

Mr. Scott Pavey, Spokane District Office
United States Bureau of Land Management
1103 N. Fancher Road
Spokane Valley, Washington 99212-1275

Dear ~~Mr. Pavey~~ Scott,

In response to your April 20, 2010 correspondence, I am submitting this letter expressing our interest in participating in the development of a resource management plan (RMP) for Bureau of Land Management (BLM) public lands administered by the Spokane District office. The Washington State Parks and Recreation Commission (Parks) has long supported proactive planning as a means to guide future land use decisions.

As we discussed via phone, in many areas of Washington State, Parks and BLM have either adjacent lands or Parks is directly involved in managing BLM owned lands. In particular, there are areas in the San Juan Islands and eastern Washington where Parks management of BLM lands occurs without a formal "Memorandum of Understanding." It is our hope that the RMP process can be used to provide a policy basis for establishing these agreements where necessary.

You and I had discussed the concept of a "hybrid" approach to our participation in the RMP process. This would allow Parks to participate in discussions that involve specific areas where we have common interests or there is a co-management scenario. This level of participation would allow Parks to have meaningful input early in the process without necessarily participating in meetings on a monthly basis.

Please note that I will be your primary staff contact. I have enclosed a business card with my contact information. Thank you for inviting us to participate and we look forward to working with your agency.

Sincerely,

Randy Kline
Environmental Program Manager

Cc: Larry Fairleigh, Washington State Parks, Assistant Director
Jim Harris, Washington State Parks, Eastern Region Manager
Eric Watilo, Washington State Parks, Northwest Region Manager

Encl: Contact information for Randy Kline

San Juan Archipelago

Counties
and
Local Governments

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: BOB MYHR

Address: 177 CALDWELL DR

City: LOPEZ ISLAND State: WA Zip: 98261

Email Address: myhr@rockisland.com Organization: SJ COUNTY

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

WORK THE PLAN WITH A "MINDSET" FOR CONSERVATION OF NATURAL, CULTURAL, SCENIC VALUES FOR PUBLIC ACCESS CONSISTENT WITH SPECIES + HABITAT PRESERVATION.

THANKS FOR BEING HERE!!

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: Richard S. Lee

Address: P. O. Box 1634

City: Eastsound State: WA Zip: 98245

Email Address: Rich@sanjuanweeds.org Organization: San Juan County Noxious Weed Control Program

Do you want your personal information withheld? No

Preferred method of contact: Email U.S. Postal Service

Interested in receiving copies of the RMP/EIS? Yes

Please check a box to indicate your preferred method to receive RMP/EIS documents?

View Documents on the web CD Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

All BLM properties in San Juan County have invasive species problems to some degree, with some requiring yearly control activities as stated in Washington State Weed Law. Please include, in your RMP, provisions for noxious weed control as well as for a baseline survey of existing flora on each property for the purposes of measuring the progress of noxious weed management.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Max Jones
<maxj@orcasfire.org>
06/23/2010 11:45 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject NCA for San Juan Island BLM Lands

Subject: NCA for San Juan County BLM Lands
Date: June 23, 2010

Thank you for the opportunity to contribute to the planning phase for this important project.

I am a Captain on Orcas Island Fire & Rescue and head the wild land Fire Division. I have fought wild fire in Washington, Idaho, Oregon, Utah, California and have been on the Orcas department for 27 years. I feel very strongly about the high wild land fire danger in our county. Although this group of islands is located in the damp region of the State, the micro-environments that exist within different areas of our county can mimic eastern Washington conditions for fire. Our isolation, lack of resources and lower population base leave many of these areas extremely vulnerable to serious fire damage. We have recorded history of just a few of these events on the trees that survived all over Orcas Island.

I think fire prevention stewardship of the BLM lands is critical. This includes proper fuel reduction, maintenance and education. I have been involved with the Patos Island project and the fuel mitigation for the meadows around the lighthouse. This has included removing blackberry, wild rose, ladder fuels, all dead and down and dog hair (new) fir growth. Plus ³early season² mowing to lower dry grass height later in the lower humidity months. And, although there still exists the uneducated approach to ³natural is doing nothing², this mentality is diminishing as the media gives witness to wild land fires cleaning out the forests, leaving little to maintain behind.

I am familiar with Patos, Victim, Indian and a few of the smaller shoal type islands. Many don¹t have timber or high fuel concentration concerns. Some do have creosote-cured timber on or against the shoreline. Besides the environmental havoc creosote leaches into the surrounding environment, it is also a contributor to extremely hot burning beach fires. They are hard to extinguish and can burn (plus release toxins to air & water) far longer than the usual smoldering beach log fire. Removal of this kind of fuel is worth the effort.

I would like to see provisions for this kind of work included in the plan. I understand funding is not available for this kind of work But to leave the door open for those, like our group, to continue volunteer work is critical to fire prevention. The current condition of many of our State Parks is a good example of rules for preservation that may well be the destruction of the very forests being protected. Moran State park is a very good example of extreme fuel loading, little or no access and less resources to fight fire should it start anywhere within the park boundary. Some of the dead and down fuels have been curing in place for well over 15 years. The hope of extinguishment is very slim. Containing it to the park is a big part of the current plan.

I would be happy to help with the fire prevention planning as well as fire response. The San Juan Island have several fire districts, some fire

brigades and a large population of concern for wild land fire prevention.

The Patos (Fire Dept) Group is part of a County, State and Federal Coalition. This kind of cooperation can be created and fostered within many of the land/recreational user groups as well as the multiple fire districts, fire bargaids and response groups.

I don¹t believe land use would be impacted as fuels reduction can be done off high-use season and as low impact as practical. Use of motorized equipment such as weed eaters, chain saws and field-mowers, have been respectfully used by our group to maximize volunteer time with no known complaints or subsequent environmental damage. In fact, we have gotten compliments on work being done and completed on every work visit to Patos.

Please include fire prevention in your overall plan.

Thank you for your time and concern.

Max Jones
Orcas Island Fire & Rescue
c/o POB 217
Eastsound, WA 98245
360-376-2331 x 26
maxj@orcasfire.org

"Bob"
<myhr@rockisland.com>
06/23/2010 11:06 AM

To <OR_Spokane_RMP@blm.gov>
cc <CNCA2010@live.com>, "Maureen See" <MaureenS@co.san-juan.wa.us>
bcc
Subject NCA for BLM Lands in the San Juan Islands

June 23, 2010

Bureau of Land Management
Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

Thank you for holding your recent scoping meeting in Friday Harbor regarding the
beginning of the management planning process for the BLM properties in the San Juan Islands. I appreciate your reaching out to our community for public input regarding the future of these lands which I consider to be some of the finest "gems" of the archipelago.

Both as a private citizen and member of the San Juan County Council, I support a National Conservation Area (NCA) designation for all of the BLM holdings in all of the San Juan Islands (which include a few holdings outside of San Juan County as well). I understand that this is a congressional designation and outside the BLM management planning process. Nevertheless, I consider an NCA designation especially appropriate because it is a long-term plan for protecting these lands in a conservation status. It should also help provide management resources to protect these lands for the benefit of future generations.

As the former executive director of The San Juan Preservation Trust (1985-2002), I have had a long and positive working relationship with the BLM, both personally and professionally. BLM has a fine reputation in San Juan County. Designating the nearly 1,000 acres of BLM lands in the San Juans as an NCA will help assure that the close relationship our community has with the BLM will continue far into the future.

Thank you for your consideration.

Sincerely,

Bob Myhr

Bob Myhr (bobm@sanjuanco.com)
San Juan County Council - District 6 - Lopez/Shaw
350 Court Street, No. 1, Friday Harbor WA 98250
360-378-2898 or 360-468-2258
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San Juan Archipelago

Non-Governmental Organizations

Mailing List and Comment Form

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First and Last Name: SUSAN VERNON

Address: P.O. BOX 3081

City: FRIDAY HARBOR State: WA Zip: 98250

Email Address: ARCPRESS@ROCKISLAND.COM Organization: ISLANDER

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☒ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

COMMENTS WILL BE FORTHCOMING
ON BLM PROPERTY AT CATTLE POINT, SAN JUAN ISLAND.

ALSO "THINK OUT OF THE BOX"
RE: NAT'L MONUMENT DESIGNATION — HERE. — MORE TO COME!

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

[redacted] rganization: Pacific Coast Joint Venture

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

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☒ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

I think BLM should
1. increase land holdings in San Juan, especially in-holdings or properties that separate BLM from other state or federal lands. Such as Carter point + DNR on Lummi
2. Protect important wildlife + plant community
3. enhance wetlands
4. develop agreements for management of sub-tidal + nearshore areas around BLM rocks + property

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

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First and Last Name: Sharon Kivisto

Address: P.O. Box 1298

City: Friday Harbor State: WA Zip: 98250

Email Address: editor@sanjuanislander.com Organization: San Juan Islander.com on line news

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☒ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Since the San Juans are under consideration for a National Monument designation - which is a management plan - wouldn't it make sense to incorporate information about the advantages or consequences of that designation in this process.

It seems odd to have a planning process that doesn't in some way acknowledge or address this other possibility.

Thank you.

Sharon

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

RE: Bureau of Land Management Spokane District Resource Management Plan

When we visualize and BLM Resource Management Plan for the San Juan Islands, I like to think of a plan that puts the protection of the fragile ecosystem of these beautiful islands as the first priority. I do believe that people can fit into this system, if due care is given to their potential impact on this ecosystem.

As far as Patos Island and its lighthouse go, we believe there is great opportunity to balance visitor use with the historical and environmental values of the island, and to preserve these values into the future.

Visitors come to Patos Island for two main reasons; to enjoy the pristine environment and peace of this remote island, and to discover the fascinating history that surrounds the island and its lighthouse.

In order to maintain these two attributes of the Patos Island, we would like to see a collaboration of partners to support the interpretation of maritime history and culture of the area, which would include emphasizing western Washington Native American history. We would also like to see a plan which would help the visitor's enjoyment and appreciation of the island and lighthouse, which would guide visitors to recognize sensitive areas and to educate them about the value of preserving such areas. Appropriate signage could both warn the visitors about sensitive areas and also educate them about what they are seeing.

In order to increase visitor awareness of the history of Patos Island, we would like to see support of Living History programs, which would especially help children and their families to understand the history of the island and its lighthouse. We would like to see a plan to help restore the entire lighthouse complex at the west end of Alden Point. Historical buildings have been tragically destroyed over the years, visitors are visible saddened when they look at the pictures and all express dismay over the destruction of the buildings. Most wonder if the buildings could be recreated to make island history come alive for them.

Archeological and Native American history of Patos Island should be discovered, documented, and made available for visitors and researchers. Living history programs could, again, feature how Native Americans visited or lived on the island. There is much left to discover about this aspect of the island's history, and we would like to see it brought to light. Native Americans used fire as a method to clear the meadow landscape and it would be interesting to recreate this method in carefully controlled areas.

Environmental programs could feature the value of the flora and fauna of the island. Patos Island features many different ecosystems which include old growth forest, wetlands, dry meadows and beach and marine environments. Right now, there is one small trail on the island, but in order to access other areas of the island ecosystem, visitors may currently choose to bushwhack through heavy brush areas. This method could damage areas of the island's most sensitive plant life. We believe a wiser way would be to plan for visitor's and researcher's curiosity through thoughtful planning and creation of more trails; while keeping in mind the solitude that many people look for when they visit the island.

A Lighthouse Museum would have great value on Patos Island. Our group has been gathering history about Patos Island, much of it from the stories and photographs of

former residents and their families. We are now piecing together the timeline of human life on the island. We would like to share this information with visitors and researchers in the setting where "it all happened".

Our Lighthouse Docent program is now in its second year and more and more people want to sign up. We currently limited by the size of the camping/group space that the State Park allows us to occupy. Ideally, we would like to set up a special Docent Camp nearer the Lighthouse, which would free up a campground space and enable us to more efficiently welcome visits.

All of our volunteer work programs and visitor outreach on Patos are made more difficult by the lack of a place to dock on the island. The old existing dock served as an island access point nearer to the Lighthouse. Now boats taking us to the island and/or delivering supplies must make a beach landing, and transport of equipment to the light house is accomplished by walking through the visitor's camp area and then walking around a mile to the Lighthouse site. A reconstructed dock would be useful to many user groups arriving on the island.

Finally, these comments all refer to the BLM Spokane District's Resource Management Plan for the San Juan Island area, but we believe that the best way to accomplish long-term protection of our area would be in the National Conservation Area designation.

Linda Hudson
Carla Chalker
Sandy Evans
Dawn Alexander
Linda Lantos
Denise Wilk
Nicole O'Neil
Patty Ware

Keepers of the Patos Light

Input for the Resource Management Plan (RMP)

by Turn Point Lighthouse Preservation Society (TPLPS)

Turn Point on Stuart Island consists of 69.3 acres of land that has historical, cultural, and scenic value as well as providing habitat for numerous species of wildlife. Of the 69.3 acres the majority is undeveloped.

This land is visited by thousands of tourists each year. They primarily walk from one of the two harbors on the Island where they moor their boats. Stuart Island is unique as it provides tourists a chance to get off their boats and stretch their legs by walking or jogging to Turn Point. Once they arrive at Turn Point, they have the opportunity to view flora, fauna, man-made structures and incredible scenery (e.g. sunsets over the Canadian Gulf Islands). Turn Point is one of the few locations where marine mammals (whales, sea lions, seals, porpoises, and dolphins) can be seen from a public property.

A road bisects the property and connects the County road to the facilities at the point. Locals, visitors, and maintenance personnel accessing the site drive it. Vehicle traffic is very light and the road serves as the walking path for individuals entering the property. Due to the steep banks and strong tides, there are very few visitors that gain access by boat.

The future of Turn Point needs to address several issues. One, the site should remain open to the public. Two, restoration of the structures should be completed. Three, the undeveloped land must be preserved in its natural state as habitat for wildlife.

As it consists of many steep cliffs, rugged roads, and undeveloped land; the safety of the public should be considered. Fires and personal injury happen infrequently, but when an emergency happens, the closest professional help is located on San Juan Island. Poor cellular coverage in the area can result in extensive delays in getting needed assistance. Better communications and first response fire suppression should be addressed in a plan.

The buildings at Turn Point date back to 1893 and may be on the National Historic Register. Visitors to Turn Point have expressed their desire to have the buildings open to the public for tours, etc. The Turn Point Lighthouse Preservation Society (TPLPS) believes this treasure belongs to the Nation and strongly desires to open these buildings to the public as well as have a guest lightkeeper program. This program would allow lighthouse aficionados to stay in the keepers' quarters and act as keepers during their stay. The lightkeeper program will require restoration of the Keepers' Quarters, a source of potable water, a sewer system, and mitigation of known or suspected environmental issues (e.g. lead paint).

TPLPS also believes that the Fog-Signal building should be restored as soon as possible, and that the museum be moved there.

Preservation of the habitat at Turn Point can be accomplished by restricting the public from roaming the property at will. Trails should be created to channel visitors to areas with special interests and be clearly marked. The site should be segregated into historic, non-historic developed and undeveloped land. All work in the historic area should be consistent with its original design and purpose. Work in the non-historic developed area should only support the historic area (e.g. wells, caretaker facilities, etc.). Work in the undeveloped land could include trail creation, fuel removal to prevent fires, and tree removal to stop diseases from spreading (e.g. laminated root rot).

Mailing List and Comment Form

RECEIVED
JUN 30 2010
Bureau of Land Mgmt.
Spokane District

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

[redacted]

Email Address: _____ Organization: WA NATIVE PLANT SOCIETY SAN JUAN ISLANDS PRESIDENT

Do you want your personal information withheld? ☑ YES ☐ NO

Preferred method of contact: ☐ Email ☑ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☑ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

I WOULD LIKE TO SEE BLM LANDS IN SAN JUAN IS USED FOR:
WILDLIFE SANCTUARY FOR TERRESTRIAL AND MARINE SPECIES.

ENVIRONMENTAL RESEARCH THAT WONT ADVERSELY IMPACT NESTING SEABIRDS, OR COLLECT SPECIMENS OF RARE PLANTS.

REMOVAL OF INVASIVE PLANTS SUCH AS BLACKBERRIES, SCOTCH BROOM, THISTLES. USE VOLUNTEERS WITH THIER OWN TRANSPORTATION.

DAY USE SUCH AS HIKING, PICNICING, BOATING, EDUCATION IN NATURAL HISTORY.

PRIMITIVE CAMPING "LEAVE NO TRACE"

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

"Jim Bergquist"
<jim@tplps.org>
07/11/2010 09:52 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Input to RMP - Resending

Input for the Resource Management Plan (RMP)

by Turn Point Lighthouse Preservation Society (TPLPS)

Turn Point on Stuart Island consists of 69.3 acres of land that has historical, cultural, and scenic value as well as providing habitat for numerous species of wildlife. Of the 69.3 acres the majority is undeveloped.

This land is visited by thousands of tourists each year. They primarily walk from one of the two harbors on the Island where they moor their boats. Stuart Island is unique as it provides tourists a chance to get off their boats and stretch their legs by walking or jogging to Turn Point. Once they arrive at Turn Point, they have the opportunity to view flora, fauna, man-made structures and incredible scenery (e.g. sunsets over the Canadian Gulf Islands). Turn Point is one of the few locations where marine mammals (whales, sea lions, seals, porpoises, and dolphins) can be seen from a public property.

A road bisects the property and connects the County road to the facilities at the point. It is driven by locals and maintenance personnel accessing the site. Vehicle traffic is very light and the road serves as the walking path for individuals entering the property. Due to the steep banks and strong tides, there are very few visitors that gain access by boat.

The future of Turn Point needs to address several issues. One, the site should remain open to the public. Two, restoration of the structures should be completed. Three, the undeveloped land must be preserved in its natural state as habitat for wildlife.

As it consists of many steep cliffs, rugged roads, and undeveloped land; the safety of the public should be considered. Fires and personal injury happen infrequently, but when an emergency happens, the closest professional help is located on San Juan Island. Poor cellular coverage in the area can result in extensive delays in getting needed assistance. Better communications and first response fire suppression should be addressed in a plan.

The buildings at Turn Point date back to 1893 and may be on the National Historic Register. Visitors to Turn Point have expressed their desire to have the buildings open to the public for tours, etc. The Turn Point Lighthouse Preservation Society (TPLPS) also wants to open these buildings to the public as well as have a guest

lightkeeper program. This program would allow lighthouse aficionados to stay in the keepers' quarters and act as keepers during their stay. This will require restoration of the buildings, a source of potable water, a sewer system, and mitigation of known or suspected environmental issues (e.g. lead paint). Preservation of the habitat at Turn Point can be accomplished by restricting the public from roaming the property at will. Trails should be created to channel visitors to areas with special interests and be clearly marked. The site should be segregated into historic, non-historic developed and undeveloped land. All work in the historic area should be consistent with its original design and purpose. Work in the non-historic developed area should only support the historic area (e.g. wells, caretaker facilities, etc.). Work in the undeveloped land could include trail creation, fuel removal to prevent fires, and tree removal to stop diseases from spreading (e.g. laminated root rot).

July 12, 2010

Sent via email and U.S. Mail

Scott Pavey
BLM Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

Dear Mr. Pavey,

We appreciate the opportunity to provide suggestions and comments that might help in framing the range of alternatives for the Eastern Washington and San Juan Planning Area. The Wilderness Society's (TWS) mission is to protect wilderness and inspire Americans to care for our wild places. TWS represents more than half a million members and supporters nationwide and our staff and members have great interest in the protection and enhancement of wild lands throughout the planning area.

I. THE LEGAL FRAMEWORK FOR ADDRESSING CLIMATE CHANGE IN LAND USE PLANS

BLM has a legal duty to address the impacts of climate change both from land management actions and to the resource area in this plan revision. There is a global scientific consensus that human-induced climate change is currently altering the landscape and ecological functions at an unprecedented rate. According to the U.S. Climate Change Science Program, the Northwest landscape could be greatly transformed due to drought, wildfire, invasive species, and rising temperatures.[1] BLM is obligated to analyze impacts of global climate change in this management plan revision.

The Eastern Washington and San Juan planning area will undoubtedly experience real effects of climate change during the 20 year period that the RMP is in effect. Many prescriptions in the RMP may contribute to and exacerbate the impacts of human-induced global climate change. In addition to a genuine analysis of impacts, it is imperative that BLM craft strategies for addressing the impacts of climate change both in terms of mitigating management decisions' contributions to climate change and adapting to inevitable impacts of climate change.

A. BLM must take a hard look at climate change impacts from management decisions in the environmental impact statement for the resource management plan

Impacts to the ecosystem from climate change include shrinking water resources; extreme flooding events; invasion of more flammable non-native plant species; soil erosion; loss of wildlife habitat; and larger, hotter wildfires. Many of these impacts have been catalogued in

[1] It has been estimated that the average temperature of the Northwest region of the United States has already increased 1.5°F to 4°F over the past century and is projected to increase another 3 to 10°F this century. *See*, United States Global Change Research Program, *Global Climate Change Impacts in the United States* (2009).

recent studies by federal agencies showing the impacts of climate change specifically in the United States such as the recent report entitled Global Climate Change Impacts in the United States, *available at* http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts.

On September 14, 2009, Interior Secretary Salazar issued Secretarial Order (S.O.) No. 3289. This order unequivocally mandates all agencies within the Department of Interior to "analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, developing multi-year management plans, and making major decisions regarding potential use of resources under the Department's purview." S.O. 3289, *incorporating* S.O. 3226 (emphasis added). The Eastern Oregon and San Juan RMP falls squarely under this guidance and BLM must assess impacts from the proposed actions that may directly, indirectly, or cumulatively result in exacerbating climate change within this document.

Additionally, the BLM State Office for Oregon/Washington has issued guidance on analyzing greenhouse gas emissions and addressing changing climate conditions in NEPA documents (IM No. OR-2010-012). This policy guidance states that this type of analysis should be included in resource management plans as these types of plans "typically have a long enough duration that climate change could potentially alter the choice among alternatives."

BLM must fully analyze the cumulative and incremental impacts of the proposed decisions in the RMP. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1217 (9th Cir. 2008). In *CBD v. NHTSA*, the NHTSA failed to provide analysis for the impact of greenhouse gas emissions on climate change and was rebuked by the U.S. Court of Appeals for the Ninth Circuit, which observed that "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." 538 F.3d at 1217. For example, off-road vehicle designations, oil and gas management stipulations, and renewable energy development may significantly increase or reduced greenhouse gas emissions contributing to climate change and must be analyzed under NEPA.

Further, NEPA regulations require that NEPA documents address not only the direct effects of federal proposals, but also "reasonably foreseeable" indirect effects. These are defined as:

> Indirect effects, which are caused by the action and are later in time or farther removed in distance, *but are still reasonably foreseeable*. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." 40 C.F.R. § 1508.8(b).

BLM is required to take a hard look at direct, indirect, and cumulative impacts to and from climate change in the planning area in the RMP. The following sections provide a suggested framework for this analysis in the RMP.

1. Quantification of Greenhouse Gas Emissions

BLM must analyze greenhouse gas emissions in the planning area as part of the RMP revision. As stated in IM No. OR-2010-012, "analysis of effects on greenhouse gas levels should be

included in relevant programmatic analyses, such as resource management plan environmental impact statements."

As a general approach, BLM should first assess and, wherever possible, quantify or estimate greenhouse gas (GHG) emissions by type and source by analyzing the direct operational impacts of their proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For many projects, energy consumption will be the major source of GHGs. The indirect effects of a project may be more far-reaching and will require careful analysis. Within this category, agencies should evaluate, *inter alia*, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, downstream combustion of fossil fuels extracted or refined by the project, water consumption, water pollution, waste disposal, transportation, the manufacture of building materials, and land conversion.

Because failure to conserve carbon sinks results in direct and quantifiable GHG emissions as well as indirect effects from reduction in carbon sequestration, the GHG effects of destruction of carbon sinks should be analyzed as part of the EIS. The GHG effects of destruction of carbon sinks should be analyzed both in terms of carbon already stored in the landscape and soil itself and in terms of the landscape's ongoing carbon-capturing properties. Such an analysis requires that an initial inventory of carbon storage potential be conducted for each landscape. The environmental review should assess and where possible quantify all the various component carbon pools – live trees, other vegetation, dead trees or vegetation (coarse, woody debris and snags), logs, litter, duff, and mineral soil – and the fluxes of carbon to and from these pools, due to natural processes like decay and fire, and those associated with management, harvest and/or manufacture of extracted resources, including the burning of fossil fuels needed to remove, transport, and process those materials. In conducting this assessment, fluxes associated with fire management and the restoration of the resilient native ecology should be accounted for separately. Net fluxes from terrestrial pools to the atmosphere may occur from management activities, such as prescribed and natural fire management, but may be considered beneficial, if they enhance the long-term carbon storage ability of the ecosystem and enhance ecosystem integrity.

While quantifying the GHG emissions from decisions in the RMP is important, BLM is also required to include qualitative analysis of impacts. A suggested approach for this type of analysis can be found in the section entitled "Risk Assessment" below.

2. Addressing Climate Change Conditions

BLM baseline data on climate change must be sufficient to permit analysis of impacts under NEPA. Importantly, 40 C.F.R. § 1502.15 requires agencies to "describe the environment of the areas to be affected or created by the alternatives under consideration." Establishment of baseline conditions is a requirement of NEPA. In *Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." The court further held that "[t]he concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process."

There is a growing body of scientific information already available on climate change baseline conditions, much of it generated by or available through federal agencies. Where there is

scientific uncertainty, NEPA imposes three mandatory obligations on BLM: (1) a duty to disclose the scientific uncertainty; (2) a duty to complete independent research and gather information if no adequate information exists unless the costs are exorbitant or the means of obtaining the information are not known; and (3) a duty to evaluate the potential, reasonably foreseeable impacts in the absence of relevant information, using a four-step process. Unless the costs are exorbitant or the means of obtaining the information are not known, the agency must gather the information in studies or research. 40 C.F.R. § 1502.22. Courts have upheld these requirements, stating that the detailed environmental analysis must "utiliz[e] public comment and the best available scientific information." *Colorado Environmental Coalition v. Dombeck*, 185 F.3d 1162, 1171-72 (10th Cir. 1999) (citing *Robertson v. Methow Valley Citizens' Council*, 490 U.S. at 350); *Holy Cross Wilderness Fund v. Madigan*, 960 F.2d 1515, 1521-22 (10th Cir. 1992).

As the Supreme Court has explained, while "policymaking in a complex society must account for uncertainty," it is not "sufficient for an agency to merely recite the terms 'substantial uncertainty' as a justification for its actions." *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co., 463 U.S. 29, 52* (1983). Instead, in this context, as in all other aspects of agency decision-making, "[w]hen the facts are uncertain," an agency decision-maker must, in making a decision, "identify the considerations he found persuasive." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 520 (D.C. Cir. 1983), *quoting Ind. Union Dept., AFL-CIO v. Hodgson*, 499 F.2d 467, 476 (D.C. Cir. 1974).

BLM's duty to evaluating reasonably foreseeable significant adverse impacts includes "impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 CFR 1502.22(b). Such impacts are especially significant in the face of climate change.

BLM must provide the public with an explanation of both the data used in analyzing the potential effects of management alternatives and the methods used to conduct the analysis, as well as an opportunity to provide comments and propose corrections or improvements.

B. BLM must craft long-term management prescriptions without permanent impairment and unnecessary or undue degradation to the resources in the face of climate change.

The Federal Land Policy and Management Act (FLPMA) gives BLM the authority to manage and plan for emerging issues and changing conditions that global climate change will affect in the planning area. FLPMA mandates that when BLM revises land use plans, it must "use and observe the principles of multiple use and sustained yield set forth in this and other applicable law" 43 U.S.C. § 1712(c).

> The term "multiple use" means the management of the public lands and their various resource values so that they are utilized in the combination that will <u>best meet the present and future needs of the American people</u>; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for <u>periodic adjustments in use to conform to changing needs and conditions</u>. . . a combination of balanced and diverse resource uses that takes into account the <u>long-term needs of future generations for renewable and nonrenewable resources</u>. . . and harmonious and coordinated management of the various resources <u>without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources</u> and

> not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

43 U.S.C. § 1702(c).

Additional pertinent requirements of FLPMA that specifically apply to land use planning include using "a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences; consider[ing] relative scarcity of the values involved; and weigh[ing] long-term benefits to the public against short-term benefits. *Id*.

FLPMA provides that BLM must "take any action necessary to prevent unnecessary or undue degradation to managed resources." 43 U.S.C. §1732(b). These provisions combine to necessitate on-the-ground implementation of climate change policies.

In addition to the agency's duty to take a hard look at the impacts of climate change to and from the proposed vegetation management plan, BLM must also include a range of alternatives that includes a strategy for mitigating these impacts. CEQ regulations instruct agencies to consider alternatives to their proposed action that will have less of an environmental impact, specifically stating that "[f]ederal agencies shall to the fullest extent possible: . . . Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e) (emphasis added); see also, 40 C.F.R. §§ 1502.14, 1502.16.

The impacts of climate change should be a major factor in every alternative that is created since it is an undeniable reality that will drive all land use planning decisions. As provided in the Oregon/Washington State Office guidance document IM OR-2010-012, "[r]esource management plans and other broad programmatic analyses are actions that would typically have a long enough duration that climate change could potentially alter the choice among alternatives."

Further, general statements that BLM will conduct monitoring are also not an appropriate form of mitigation. Simply monitoring for expected damage does not actually reduce or alleviate any impacts. Instead, a vigilant science-based monitoring system should be set out in the RMP in order to address unforeseeable shifts to the ecosystem. A detailed monitoring approach is also required under the BLM's planning regulations:

> The proposed plan shall establish intervals and standards, as appropriate, for monitoring and evaluation of the plan. Such *intervals and standards shall be based on the sensitivity of the resource* to the decisions involved and shall provide for evaluation to determine whether mitigation measures are satisfactory, whether there has been significant change in the related plans of other Federal agencies, State or local governments, or Indian tribes, or whether there is new data of significance to the plan. The Field Manager shall be responsible for monitoring and evaluating the plan in accordance with the established intervals and standards and at other times as appropriate to determine whether there is sufficient cause to warrant amendment or revision of the plan.

43 C.F.R. § 1610.4-9 (emphasis added).

Such vigilant monitoring is absolutely necessary in order to create an effective adaptive management framework in the face of climate change.

The following is The Wilderness Society's recommended approach to developing management prescriptions to allow the land and resources to adapt to the impacts of climate change while meeting the agency's legal obligations:

Recommendations: The proposed revision to the land use plan for this area provides BLM with an excellent opportunity to analyze the impacts from climate change to the planning area over the next two decades, as well as the contribution to climate change from management decisions made in the plan. This analysis should in turn lead to the development of thoughtful management prescriptions and alternatives in the land use plan that will address how BLM will mitigate these causes and adapt its management over the coming years to prevent permanent impairment and unnecessary or undue degradation to the resources in the face of climate change. Like other land management agencies, BLM has been struggling to define how it can meet its legal obligations to analyze the baseline conditions and environmental impacts associated with climate change in light of scientific uncertainty and complexity as well how to set management prescriptions that mitigate and adapt to additional or exacerbated stressors caused by a changing climate.

In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change reviewed a number of impacts on biodiversity associated with anticipated changes in climate world-wide and concluded, "Overall, climate change has been estimated to be a major driver of biodiversity loss in cool conifer forests, savannas, mediterranean-climate systems, tropical forests, in the Arctic tundra, and in coral reefs… In other ecosystems, land-use change may be a stronger driver of biodiversity loss at least in the near term…" but "beyond 2050 climate change is very likely to be the major driver for biodiversity loss globally" (Fischlin et al. 2007, p.241). The IPCC notes further that, "Although links between biodiversity intactness and ecosystem services remain quantitatively uncertain, there is high confidence that the relationship is qualitatively positive" (Parry et al. 2007). Thus, the IPCC has concluded that through its influence on biodiversity, climate change is likely to have direct negative consequences on the provision of ecosystem services. In response, they prescribe "<u>an iterative risk management process that includes both mitigation and adaptation, taking into account actual and avoided climate change damages, co-benefits, sustainability, equity and attitudes</u>." (IPCC 2007) (emphasis added).

Under the pressures of global change, it must be acknowledged that many objects of conservation are at risk wherever they are found, and the traditional natural resource management paradigm of modifying ecosystems to increase yield must change to a new paradigm of managing wildland ecosystems to minimize loss – specifically loss of the ecosystem composition, structure, and function that yields the benefits we seek from wildlands. Natural resource management must change from a paradigm of maximum sustained yield to a paradigm of risk management.

Although there is no widely-accepted method of assessing and managing risk, we recommend breaking risk down into its component parts—vulnerability, exposure, and uncertainty—as a useful way to think about risk to biodiversity and productive potential. **In the following sections of this document, we recommend an approach for assessing risk in the planning area as well as an approach for management of that risk for BLM to comply with its legal obligations under NEPA and FLPMA as set out above.**

II. BLM SHOULD ADOPT THE FOLLOWING RISK ASSESSMENT AND MANAGEMENT APPROACH TO THIS LAND USE PLAN TO COMPLY WITH ITS LEGAL OBLIGATIONS

RISK ASSESSMENT: A RECOMMENDED APPROACH[2]

We strongly recommend that the agency use the following "risk assessment" strategy when evaluating impacts to the planning area under NEPA and relevant guidance.

Efforts to manage risk begin with a risk assessment, which characterizes risk in terms of vulnerability, exposure, and uncertainty, or, as Bartell (1998) has written, an inquiry into "What can go wrong?" and "How likely is it to happen?" To these questions, Bartell adds a third, "So what if it does?" as a gauge to determine if action is needed to address the risk. Bartell's rendering is intended to frame the topic of formal, quantitative risk assessment, but the framework applies to less formal assessment of vulnerability, exposure, and uncertainty, as well.

Assessing Vulnerability

The vulnerability of ecosystems and the species and physical elements they comprise depends on their inherent qualities and their ability to change or adapt to address new climatic conditions. A system may be considered vulnerable if it is sensitive to the effects of climate change and has limited ability to adjust to those effects. For example, the rocky intertidal ecosystem may be highly sensitive to the effect of rising sea level (and the inundation of the intertidal zone) but less vulnerable if its species are capable of colonizing new habitat created by the rising seas (i.e., high sensitivity, high adaptive capacity). Conversely, a mountain stream community that is dependent on cold summer water from a melting glacier may be very vulnerable once the glacier has melted away, despite the ability of its constituent species to move great distances (i.e., high sensitivity, low adaptive capacity).

Vulnerability of component species can be affected by the tolerance of individual organisms to the direct effects of climate change, the ability of populations to adapt to those conditions through the expression of genetic variability, and the ability to adjust behaviorally to changes in the ecosystem, such as prey shifts. For example, dandelions (*Taraxacum officinale*), which occupy a broad range of climatic conditions despite possessing essentially no genetic variability in the species, would not seem to be inherently sensitive to climate, whereas pikas (*Ochotona princeps*), which live only in the narrow alpine zone of western mountains, may be highly sensitive (Holtcamp 2010). Some species that are able to move easily may be able to adapt well to climate change even if they are inherently sensitive, provided that they can find the conditions they need to live, and others may be able to remain in place, if the population can produce offspring that are adapted to the new conditions. Pollen records indicate that some species have been able to survive dramatic changes in climate in a given place, even though the individuals making up the current population may themselves be quite sensitive. A vulnerability assessment would examine the species and physical elements of existing wildland ecosystems and determine which elements are sensitive, which have the ability to adapt, and what the likely consequences would be of anticipated changes in climate.

[2] This approach is a truncated version from a larger research paper developed by The Wilderness Society during the scoping period for the Forest planning revision in the Sierra Nevada entitled "Managing the Risk of Climate Change to Wildlands of the Sierra Nevada" (2010). This broader paper illustrates the concepts we describe here and can be found in its entirety in Attachment 1.

Because ecosystems are so complex, it is impossible to evaluate the vulnerabilities of every population, species, community, or other element of the system in question. Instead, risk assessment must focus on particular, high-priority elements or "key vulnerabilities." In its 4th Assessment Report, the IPCC (Schneider et al. 2007) suggested the following criteria for identifying key vulnerabilities:

- magnitude of impacts,
- timing of impacts,
- persistence and irreversibility of impacts,
- likelihood of impacts and vulnerabilities,
- potential for adaptation,
- distributional aspects of impacts and vulnerabilities,
- importance of the system(s) at risk.

In other words, key vulnerabilities are likely to occur where the effects of climate change are large and intense, imminent, long-lasting, highly probable, and likely to limit the distribution of highly valued systems or system elements.

The IPCC uses their criteria to select key vulnerabilities across a broad array of systems: infrastructure, health, markets, agriculture, migration and conflict, as well as biological and geophysical systems. Focusing their thinking only on wildland systems, Running and Mills (2009) suggest that the most vulnerable elements of ecosystems are those that are 1) rare; 2) long-lived (with fewer generations in which to evolve); 3) isolated; 4) dependent on special habitats (especially those directly affected by climate, such as deep snow and ephemeral wetlands); and 5) susceptible to the kinds of disturbances likely to result from climate change (fire, floods, extreme drought). In addition to these "highly vulnerable" species, they recommend focusing on a) species with "a high public profile;" b) "data-rich" species; and c) "strongly interacting" species (keystone and dominant species). Species with a high profile are those that are appreciated for their strong contribution to ecosystems services, providing utilitarian, recreational, and aesthetic value. "Data rich" species provide the information necessary to devise potential conservation strategies, and "strongly interacting" species, by definition, control ecosystem function. Running and Mills apply their criteria specifically to species, but similar considerations may apply to features, such as glaciers, rare soils, riparian vegetation, and old growth forests. A vulnerability assessment should explicitly examine species and other ecosystem elements that meet these criteria and explore the factors that make them vulnerable.

***Recommendation*: The BLM should evaluate the planning area for key vulnerabilities according to the criteria above, and the nature of the climate threat to selected ecosystem elements should be fully examined and presented as part of the plan revision process in order to comply with its legal obligations under NEPA and other relevant laws and regulations. Such an assessment should include careful consideration of species and habitats of conservation concern.**

Assessing Exposure

The assessment of exposure to climate change requires both the examination of the probability and timing of future climate change and the likely changes to which ecosystem elements may be vulnerable. Changes in average temperature and precipitation are important first-order effects to which many species are sensitive, but there are many other effects that constitute exposure. As mentioned, melting glaciers may cause an increase in summer stream temperature. Increased droughts may stress plants and animals, and early onset of spring is already increasing exposure

to fire activity (Westerling et al. 2006). More subtle changes are also expected. Plants may be exposed to pollinator shortages, and species range shifts may turn native species into invasive species. A risk assessment should examine the probability of exposure to these and other likely effects.

Assessing exposure probability involves combining information about likely climate change and its effects. Possible climate change can be assessed using predictive models that can be run under a variety of future scenarios. The results of these climate models can then be linked to other models to explore effects on future vegetation, fire regimes, hydrology, etc. (Lenihan et al. 2003). Where models agree with each other and produce similar results under multiple scenarios, the results can be viewed with a high degree of confidence. Where models produce a range of behaviors, prediction is less robust. In general, as the spatial resolution of models increases through the process of "statistical downscaling," agreement, and hence confidence, decreases. Millar et al. (2007) note, "We might feel confident of broad-scale future environmental changes (such as global mean temperature increases), but we cannot routinely predict even the direction of change at local and re-gional scales (such as increasing or decreasing precipitation)." Nevertheless, models can be used to explore possibilities, "game different scenarios, and gain qualitative insight on the range and direction of possible future changes without committing to them as fore-casts" (Millar et al. 2007).

In addition to examining the probability of various changes in climate, an assessment of exposure should examine the consequences of those changes and where they are likely to occur in space and time. For example, sea-level rise is a highly likely and potentially devastating consequence of climate change but one that is limited in extent to coastlines. Increased fire activity is also to be expected, but exposure is likely to be of greater concern near homes than away from them. An exposure assessment should examine where the threat of increased fire activity is likely to be most acute, including how that threat will change with growth of the "wildland-urban interface." Potential future effects are many, and precise quantification of probabilities may be beyond the limits of existing tools and budgets. In these cases, future possibilities can be explored through "scenario planning," in which groups of analysts or stakeholders consider a broad range of possible consequences of climate change (Welling 2008).

***Recommendation*: A risk assessment conducted as part of the plan revision should identify the direct and indirect modes of exposure to climate change and attempt to quantify them based on the best available science as required by NEPA and other laws and regulations.**

Assessing Uncertainty

Because assessing the risks associated with climate change involves predicting future conditions, it is no surprise that it is fraught with uncertainty. Limitations in predictive ability derive not only from uncertainty about future conditions but from limitations of our understanding of current and historical conditions and the factors that drive ecosystem behavior. Table 1 lists only a few of the many sources of uncertainty that plague the assessment of risk from climate change. Each of these sources contributes to risk, and the better they are understood, the more complete the assessment of risk.

The sources in Table 1 are not an exhaustive list but only illustrate the range of unanswered questions. As vulnerabilities and exposure are assessed, many more uncertainties will be revealed. It is critically important that these uncertainties be explicitly documented and incorporated into the risk assessment so that strategies can be developed to reduce uncertainty in the plan.

Table 1. Sources of uncertainty in understanding future climate change and its effects	
Data limitations	♦ Poor records of past climate surfaces ♦ Poor records of species occurrences
Limitations in ecological knowledge	♦ Habitat/range models ("climate envelopes") ♦ Limited understanding of species response to climate change ♦ Mortality rates and thresholds of mortality and recruitment ♦ Dispersal ♦ Species interactions ♦ Behavior of novel ecosystems ♦ Effects of interacting stressors
Model limitations and variability	♦ Limited understanding of the climate system ♦ Intermodel variation in model output ♦ Intramodel variation in model output ♦ Downscaling coarse resolution global output to generate higher resolution future climate (especially in topographically diverse terrain)
Vagaries of human behavior	♦ Future emissions scenarios ♦ Institutional resources ♦ Public support ♦ Planning horizon ♦ Shifting decision processes and loci

Under such an indeterminate future, assessing vulnerability and exposure will be especially difficult, placing added importance on the identification and reduction of uncertainty in land management plans.

Recommendation: **Pursuant to NEPA, BLM should identify and document known sources of uncertainty and data needs and initiate action to fill those gaps at the earliest possible point in the RMP revision process. Where data gaps remain, the plan should include strategies to reduce uncertainties.**

MANAGING THE RISK OF CLIMATE CHANGE: A RECOMMENDED APPROACH

We strongly recommend that the agency use the following "risk managment" strategy in conjunction with the "risk assessment" strategy laid out above when developing management prescriptions in the face of climate change.

Adaptation is the management of risk to reduce the adverse effects of climate change on ecosystem services received from wildlands. Actions that reduce the vulnerability to, exposure to, and uncertainty of climate change impacts contribute to adaptation. Each of these aspects of risk can be managed to reduce the negative consequences of climate change to wildlands.

Unfortunately, which techniques will be most effective remains to be determined. Learning will require an experimental approach, tailored as appropriate to the specific lands on which they are applied. Silviculture and other intensive management actions will not be appropriate in lands designated to protect wilderness character, but they may be tested on less-restrictive parts of the landscape. The important thing is that these methods are approached experimentally, with monitoring to facilitate rapid learning (Lawler et al. 2010). Finally, the diversity of administrative designations present in most landscapes can themselves provide a framework for experimentation that can accelerate discovery of approaches to climate change adaptation.

Reducing vulnerability

Depending on which ecosystem elements are identified as "key vulnerabilities" in the risk assessment, a variety of options are available to decrease vulnerability by reducing the sensitivity to climate change or by enhancing adaptive capacity. One of the simplest and most direct ways to reduce sensitivity is to address the stressors in addition to climate change that make species and ecosystems vulnerable to climate change. Reducing these anthropogenic stressors has been called the "low-hanging fruit" of climate change adaptation (Joyce 2009) and includes increasing the size and number of protected reserves, restoring altered disturbance regimes, halting and repairing the loss and fragmentation of habitat, managing invasive species, cleaning up air and water pollution, and addressing the legacy of past management. According to Galatowitsch et al. (2009), "Key resilience actions include providing buffers for small reserves, expanding reserves that lack adequate environmental heterogeneity, prioritizing protection of likely climate refuges, and managing forests for multi-species and multi-aged stands."

In addition to reducing susceptibility, actions can be taken to enhance the capacity of species and ecosystem elements to remain viable in the face of climate change. Enhancing adaptive capacity consists of actions to facilitate or improve the ability of species (usually) to respond favorably to climate change. The following are several examples of strategies to enhance adaptive capacity derived from the burgeoning literature of "adaptation options" (Noss 2001, Millar et al. 2007, Joyce et al. 2008, Biringer 2003, CNRA 2009, Glick et al. 2009, Running and Mills 2009).

- *Promote connected landscapes.* Restoring and maintaining habitat connectivity provides species with the "room to roam" they need to respond to a changing climate. Without connected habitat, species may not be able to disperse to new locations exhibiting a favorable climate. Providing corridors and habitat connectivity facilitates the innate capacity to disperse in response to climate change.
- *Facilitate migration.* Where movement in response to climate change is blocked by habitat fragmentation or where species lack the dispersal ability to "keep up with" a changing climate, species can be physically moved across barriers. Of course, such decisions must be weighed extremely carefully to avoid the well-known consequences of

the arrival of invasive species into novel habitats. McLachlan et al. (2007) offer guidelines for consideration of assisted migration.

- *Provide opportunities for rapid evolution.* The ability of species to adapt to new climates is enhanced where new genotypes are frequently exposed to new conditions. Restoration of disturbance regimes, such as fire, that provide for frequent opportunities for expression of genetic variability can accelerate the process of adaptation.
- *Maintain genetic diversity.* Running and Mills (2009) note, "Contemporary adaptive evolution is facilitated by a medium level of gene flow," suggesting that adaptation may be aided better in the short run by moving genes, rather than species. Maintaining habitat and dispersal connectivity among subpopulations will ensure continued opportunities for interbreeding and cross-pollination and help maintain adaptive capacity in populations. Also, guidelines for replanting following timber harvest currently require seedlings to be derived from local seed sources. Expanding the range from which seedlings are derived could help introduce new, better-adapted genotypes into the population.
- *Promote species diversity.* At the community or ecosystem level, adaptation and the maintenance of ecosystem services is well served by maintaining a rich diversity of species. Different species possess different thresholds of response to climate change. The loss of an individual species due to climate change will have a less dramatic effect on an ecosystem if other species are present that can fill at least part of that species' niche.
- *Manage for "asynchrony".* Populations are more vulnerable when all the individuals are in the same demographic stage. The current mountain pine beetle epidemic exemplifies the consequences of a synchronous population, in this case due to the establishment of a single cohort of lodgepole pine throughout the West following widespread mining and fires in the late 19th century. Restoring disturbance regimes can help maintain a heterogeneous landscape with multiple age classes and help reduce vulnerability to climate change.
- *Enhance seed banks and ex situ conservation.* Owing to the unpredictability of the consequences of climate change, it is not too early to consider enhancing and expanding seed banks and other "off site" conservation efforts. Climate change may lead to localized extinctions, especially of isolated populations, and, in these cases, enhancing adaptive capacity will depend on the artificial reintroduction of stock maintained elsewhere.
- *Allow establishment of "neo-native" ecosystems.* The species that exist today have generally been around far longer than the ecosystems they currently compose, often in locales outside of their current range where the climate was historically suitable. As the climate changes, species can be expected to reoccupy their former range where suitable. Also, where species are to be introduced for purposes other than biodiversity conservation (e.g., timber plantations, pastures), review of the paleoecological record may provide insights into where species may thrive in their historically "native" range under an altered climate. Ecosystems so established may be considered "neo-native" in that they would consist of native species in their historical range, though in combinations that may not currently exist.

***Recommendation*: BLM has a legal duty to prevent permanent impairment and unnecessary or undue degradation to the resources, and to manage the resources for the long-term needs of future generations. This obligation requires the agency to reduce the vulnerability of the ecosystem to the very real threats posed by climate change. BLM can comply with this duty by adopting several or all of the strategies listed above, depending on the ecological composition and land tenure of the area.**

Reducing exposure
As with vulnerability, the climate adaptation literature indicates several options to manage risk by reducing exposure. Most important, but least directly affected by management, is mitigation of greenhouse gas emissions themselves. More under managers' control is the exposure to the effects, both direct and indirect, of climate change. Last, managers can identify and protect those places that are least likely to be affected by climate change, so called "climate refugia."

Mitigation. While the vast majority of emission reduction must be accomplished in the energy sector, there are several actions that wildland managers can take to prevent unnecessary release of greenhouse gases to the atmosphere. One of the easiest sources to control is the conversion of old growth to young forest. It is well established that when older forest is harvested and regenerated to younger forest, a net release of carbon dioxide results from the decomposition of coarse and fine debris and soil organic matter that occurs in the warm post-harvest environment (Harmon et al. 1990).

Reducing exposure to the effects of climate change. While it is clear that forest management can affect exposure through its influence on greenhouse gas emissions, it is also clear that climate change has become inevitable, and risk management must focus on reducing exposure to its effects. One of the most likely of these effects is drought, due to more rapid melting of snowpack and increased evapotranspiration – even if precipitation does not change (National Research Council 2008). Increased drought will result in lower levels of summer streamflow and warmer water temperatures, with potentially devastating effects on aquatic ecosystems and impacts on the ability of ecosystems to provide water for human use. In addition to drought, extreme flood events are likely to increase as a result of rain-on-snow events where they have not occurred historically. To address these effects, actions will need to be taken to build up the buffering capacity of watersheds and restore riparian ecosystems degraded by grazing, water diversion, and channeling. The U.S. Climate Change Science Program offers a number of adaptation options for managers of Wild and Scenic Rivers that can be applied as well wherever riparian ecosystems are exposed to the effects of climate change (*See,* Palmer et al. 2008).

Among the emerging strategies to buffer the effects of climate change is to restore the water retaining capacity of river systems. Opperman et al. (2009) argue for actively reconnecting rivers to their floodplains. Similarly, Running and Mills (2009) suggest in some cases it may be helpful to construct "pico-dams" in headwater streams, tiny impoundments intended to retain runoff and maintain late-season flows. Such a strategy may be implemented through the restoration of wet meadows that were drained to facilitate livestock grazing and other uses. In any case, actions such as fish stocking or impoundment should be done to sustain ecosystem integrity and functionality, not simply to enhance sport fishing or manage water supply. Closing and rehabilitating roads can also restore subsurface flow and slow the delivery of runoff to channels.

Climate Refugia. In some cases, it may be possible to avoid exposure to many of the effects of climate change by identifying and protecting those places where climate is unlikely to change. Noss (2001) notes that refugia from past unfavorable climates harbored much of the genetic and species diversity from which extant populations and communities derive and are important objects of conservation for the diversity they still harbor. Similarly, we can expect some places to be less prone to change in the future, and these places will be important to protect for their potential to harbor diversity in the face of regional climate change. For example, Noss cites the case of talus slopes in Iowa that occur in cold-air drainages below ice-filled caves that now support dozens of vascular plant species that are disjunct from boreal forests to the north and west

and at least eight landsnail taxa that were previously thought to have gone extinct at the end of the Pleistocene. As downscaled climate models continue to improve, it may be possible to use them to identify places that will be less exposed to climate change and can be protected for their conservation value (Loarie et al. 2009), though much work remains to determine the appropriate size, configuration, etc., for such refugia.

***Recommendation*: BLM a has legal duty to prevent permanent impairment and unnecessary or undue degradation to the resources, and to manage the resources for the long-term needs of future generations. This obligation requires the agency to reduce exposure of the ecosystem to the very real threats posed by climate change. BLM can comply with this duty by adopting several or all of the options listed above, depending on the ecological composition and land tenure of the area.**

Reducing uncertainty

Uncertainty appears as an obstacle to climate change adaptation in virtually every treatment of the subject; reducing uncertainty may therefore be considered critical to progress in managing risk from climate change. Much uncertainty derives from insufficient knowledge of current conditions and management effects and may be reduced simply through increased emphasis on *monitoring*. Reducing uncertainty about the nature of ecological and social systems and their future behavior requires investment in *research*. Learning can be greatly accelerated by the process of *adaptive management* that combines aspects of both research and monitoring to reduce uncertainty. Where knowledge of the future is especially high and control over the consequences of climate change is low, *scenario planning* may be used to prepare for possible outcomes, thus reducing uncertainty and anxiety over how to respond.

Monitoring. A major impediment to the reduction of uncertainty regarding future impacts of climate change is simply a lack of knowledge of current baseline conditions and the ability to detect change in the future. The U.S. Climate Change Science Program (Kareiva et al. 2008) identifies establishing baseline conditions and monitoring as key elements of im-pact assessment necessary to support adaptation. In their review of the climate change adaptation literature, Glick et al. (2009) identify increased monitoring as one of five general principles of adaptation. Monitoring is needed not only to detect the effects of climate change but to assess the success of adaptation actions.

Research. Many of the uncertainties associated with climate change can only be addressed through formal research, and research will continue to be essential to climate change adaptation. Accomplishment of much of this research will require cooperation with the agencies managing the land. Reduction of future uncertainty can be greatly accelerated if the managing agencies work closely with scientists to facilitate, advise, and assist in climate change research. If it has not done so already, BLM should invite broad participation from DOI's Landscape Conservation Cooperatives and Regional Science Centers throughout the RMP revision.

Adaptive management. When aspects of monitoring and research are combined into an approach to management that is explicitly intended to accelerate learning, it is called "adaptive management." According to Innes et al. (2009), "adaptive management can be viewed as a systematic process for continually improving management policies and practices by monitoring and then learning from the outcomes of operational programmes. Within the context of climate change,…adaptive forest management is one tool that could enable managers to adjust the structure and the consequent functioning of the forest ecosystem to resist harmful impacts of

climate change, and to utilize the opportunities created by climate change." (p.137). Typically, adaptive management follows a continuous cycle of planning, implementation, monitoring and evaluation (DeLuca et al. in press).

Adaptive management is sometimes described as either "passive", when management is modified simply as a result of observing the consequences of past action, or "active", when management actions are designed explicitly as an experiment to test competing hypotheses (Kareiva et al. 2008). Whatever the case, monitoring is essential to the process of evaluation and modification. Experience has also shown that adaptive management functions best when it involves the public in the identification of the hypotheses to be tested, in the design of the monitoring strategy, and in the implementation of the monitoring program (Bliss et al. 2001, Innes et al 2009). So important is stakeholder involvement to the development of the "social license" necessary for management action that "the entire concept has been renamed adaptive collaborative management or adaptive co-management" (Innes et al. 2009). In the end, BLM must apply the lessons learned from monitoring and research to amend their decision path as necessary.

Scenario planning. When uncertainty is high and the "controllability" of the outcome is low, there may be little that managers can do to design management strategies "to resist harmful impacts of climate change" as referred to above (Innes et al. 2009). In these cases, uncertainty, or at least anxiety over the uncertainty of climate change, can be reduced by scenario planning. Scenario planning is a (usually) qualitative process "that involves exploration and articulation of a wide set of possible or alternative futures" (Baron et al. 2008). Scenarios are plausible stories or narratives describing what might happen under an uncertain future. Their development can be aided by quantitative data or models, but the idea is to explore a range of possible futures, rather than try to predict a single "most-likely" case. When developed in the context of broad stakeholder participation, they can increase understanding of key uncertainties, facilitate the incorporation of alternative perspectives into planning, and improve the capacity for adaptive management (Welling 2008).

***Recommendation*: Reducing uncertainty of baseline conditions and the impacts of management in the face of climate change should be a major priority of any risk management strategy set forth by the agency to reduce the risk posed by climate change. BLM should build in robust research, monitoring, adaptive management, and scenario planning into the land use plan in order to address this challenging aspect of risk management.**

III. BLM HAS A DUTY TO PRIORITIZE AND PROTECT AREAS OF CRITICAL ENVIRONMENTAL CONCERN

The Federal Land Policy and Management Act (FLPMA) obligates the BLM to "give priority to the designation and protection of areas of critical environmental concern [ACECs]." 43 U.S.C. § 1712(c)(3). ACECs are areas "where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes." 43 U.S.C. § 1702(a).

BLM's ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. *See*, Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess relevance (such that it has

significant value(s) in historic, cultural or scenic values, fish & wildlife resources, other natural systems/processes, or natural hazards) and importance (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile or vulnerable). In addition, the area must require special management attention to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions. For potential ACECs, management prescriptions are to be "fully developed" in the RMP. Manual 1613, Section .22 (Develop Management Prescriptions for Potential ACECs). The BLM-managed lands on the San Juan Islands meet all three criteria for designation as an ACEC.

Re-designation of ACECs
Point Colville and Iceberg Point were designated as ACECs in 1990 in order to protect the outstanding natural values in these areas. These values are even more relevant and important today and in direct threat of being dramatically altered in the face of climate change. Threats to these areas include unsustainable recreation use and loss of natural meadows from fire suppression.

Nomination of New ACECs
We nominate the remainder of the San Juan Island within the National System of Public Lands to be designated as Areas of Critical Environmental Concern including, but not limited to Cattle Point, Chadwick Hill, Watmough Bay, Patos Island including the Patos Lighthouse, Turn Point and the Turn Point Lighthouse, and Kellet Bluff. BLM should consider how the partnership with WA State Parks Department can continue for managing some of these areas. Several small islands, rocks, and reefs under BLM stewardship should also be considered for ACEC designation.

BLM should provide an evaluation of and prescriptions for how the plan will be consistent with the land use plans for the nearby San Juan Island National Wildlife Refuge pursuant to 43 C.F.R. § 1610.3-2. The proximity to the National Wildlife Refuge in the area may be confusing to the public with the refuge islands having the potential to receive inappropriate use because of the public's inability to distinguish BLM lands from the refuge. One approach is to manage these small areas in a way that mirrors that of the National Wildlife Refuge. This can be done through ACEC designation and specific protective management prescriptions for lands nearby the refuge along with appropriate implementation on the ground.

These are nationally significant lands. There are no other lands managed by the Bureau of Land Management within this ecoregion. These units provide extraordinarily scenic vistas of this unique region of the United States. These islands contain important historical resources like the Patos and the Turn Point Lighthouses, both established in 1893. Much like the California Coastal National Monument, managed by BLM in the National Landscape Conservation System, this series of islands, rocks, and reefs provides habitat for myriad species of marine wildlife.

These islands deserve special management attention due to their relatively small areas being highly susceptible to degradation and for the protection, adaptation, and study of global climate change. In light of the threat and uncertainty of global climate change, BLM should designate these spectacular lands as ACECs.

Specific Proposed Management Prescriptions
These ACECs should be afforded the same protective management as Point Colville and Iceberg Point, including, but not limited to:

- Designate VRM Class I.
- Prohibit all motorized vehicular travel, except for emergency vehicles.
- Prohibit any trail construction.
- Prohibit fuel wood cutting and commercial timber sales.
- Require permits for any vegetation collection.
- Survey and clearly mark the boundaries of both parcels.
- BLM will seek out opportunities to acquire non-federal land within the ACEC boundary, including purchase from willing private sellers and/or exchange, and upon acquisition such lands will be incorporated into the ACEC.
- Close the area to all forms of energy development.
- Exclude authorizations for new rights-of-way or other reality actions (including communications towers and wind development).
- All uses limited to designated roads and trails.
- Prohibit rights of way for additional roads.
- Prohibit mineral material sales.
- Prohibit grazing of livestock.
- Design management activities to protect federally or state listed threatened, endangered and/or sensitive species.
- Place signs to control visitor use as necessary.
- Require special permits for groups containing ten or more individuals.
- Establish a monitoring program, focusing on preserving natural qualities of the areas and adaptation of the area to climate change.
- Close the areas to any use or combination of uses that tend to degrade the natural values of the sites.

***Recommendations*: BLM should retain the ACEC designation and protective management prescriptions for both Point Colville and Iceberg Point in this RMP revision. In addition, BLM should consider designating the remainder of lands in the National System of Public Lands on the San Juan Islands as ACECs. These highly significant lands are like none other in the BLM system of public lands and are extremely important for the adaptation to and study of global climate change.**

CONCLUSION

The Wilderness Society, along with our members and supporters, thank you for considering these comments. We are especially interested providing input on climate change mitigation and adaptation evaluations and strategies created during this land management plan revision. We look forward to being involved throughout this process as it moves forward. Please contact us with any questions.

Sincerely,

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RESEARCH PAPER

THE WILDERNESS SOCIETY

MANAGING THE RISK OF CLIMATE CHANGE TO WILDLANDS OF THE SIERRA NEVADA

GREGORY H. APLET, H. MICHAEL ANDERSON, AND BO WILMER

I. KEY POINTS

- The National Environmental Policy Act requires that national forest planning address the impacts of proposed actions on the quality of the environment, including impacts on the climate and society's ability to adapt to climate change.
- Global change threatens to undermine the ability of ecosystems to produce the goods and services we expect from wildlands.
- Therefore, the purpose of planning must change from coordinating the production of traditional forest outputs (timber, forage, visitor days) to the management of risk.
- The goal of wildland planning must become the maintenance of the biodiversity and productive potential that sustain ecosystem services in the face of global change.
- Risk to biodiversity and productive potential can be assessed by breaking risk down into its component parts: vulnerability, exposure, and uncertainty.
- A vulnerability assessment should examine both the sensitivity and adaptive capacity of "key vulnerabilities," a limited set of ecosystem elements that are especially vulnerable and important.
- An exposure assessment should examine the likelihood of both direct effects of climate change and indirect effects, such as changes in disturbance regimes, species invasions, and phenological shifts, on key vulnerabilities.
- A risk assessment should also document sources of uncertainty that limit understanding of future conditions and effects.
- Climate change adaptation requires action to reduce risk. Planning for adaptation requires the development of strategies to reduce vulnerability, exposure, and uncertainty.
- Because there is uncertainty regarding which management actions will yield the greatest reductions in risk, a portfolio of approaches must be undertaken within a framework of experimentation to facilitate rapid learning.

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II. PURPOSE

This research paper is intended to identify issues that must be analyzed as part of the forest plan revision process in the Sierra Nevada and to offer methodologies to assist the Forest Service in assessing the risks of climate change to ecosystems and developing plans for climate change adaptation.

In making land use decisions, federal agencies have an obligation under the National Environmental Policy Act (NEPA) to take a "hard look" at the environmental consequences of a proposed action, and the requisite analysis "must be appropriate to the action in question." This paper presents a framework to be used in analyzing the impact of public land management proposals on the achievement of goals in the face of climate change. Federal agencies cannot evaluate the consequences of proposed decisions or determine how best to avoid or mitigate negative impacts without adequate data and analysis. Through the application of methodologies such as we have provided below, using data collected from identified sources and measuring potential impacts through key indicators, federal agencies can better fulfill their obligations to evaluate the direct, indirect, and cumulative impacts of various alternative decisions.

III. INTRODUCTION

We have organized this paper to provide a framework for considering climate change impacts through the land management planning process and to demonstrate how analysis can facilitate the development of a plan that helps manage the risks of climate change to the environment. The first section describes the legal, regulatory, and guidance context for the consideration of climate change in planning. Next, we describe how the advent of climate change requires a new frame for the consideration of environmental impacts that changes the emphasis from the production of outputs to the management of risk. The third section presents a process for assessing risk from climate change, and the fourth section describes a number of approaches that should be applied to the management of the risks identified in the assessment. We close with a set of specific recommendations to ensure that climate change is adequately addressed in the planning process for the Sierra Nevada. An appendix provides examples of analyses that illustrate how existing data can be used in the development of strategies to manage risk.

IV. CLIMATE CHANGE AND NATIONAL FOREST PLANNING: THE LEGAL, REGULATORY AND GUIDANCE CONTEXT

The laws governing national forest planning and management require the Forest Service to carefully analyze and take into account the growing body of scientific information regarding the relationships between climate change and national forest resources such as water and wildlife. Following is a brief synopsis of the key statutes, regulations, and other relevant legal direction guiding the incorporation of climate change science into forest plans.

National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 U.S.C. §§4321-4370, provides the legal framework for agencies to systematically evaluate climate change information during the decision-making process. NEPA requires all federal agencies to analyze the impacts of proposed actions that significantly affect the environment, to involve the public in agency decision-making, and to consider a reasonable range of alternatives from which to choose a course of action.

This analysis is important both for proposed actions that may contribute to climate change and for an adequate analysis of the effect of climate change on proposed actions. Inherent in the NEPA process are several very important steps that should inform the debate about how to proceed in the face of climate change: dissemination of information, consideration of alternatives, disclosure and evaluation of the consequences of incomplete and unavailable information, consideration of cumulative impacts, and consideration and potential implementation of monitoring and mitigation. Each of these is an essential part of the NEPA process, and their consideration in the context of climate change adaptation must be included in an adequate NEPA analysis. There is no reason for federal agencies to avoid a discussion of climate change impacts, to ignore what we do know, or to rely on now outdated boilerplate explanations of why it is not possible to offer meaningful analysis.

NEPA also requires that the Forest Service identify and describe the no action alternative in the context of a changing climate. The no action alternative must be more than a boilerplate statement that current conditions will continue. It is now understood that anthropogenic greenhouse gases will continue to warm the planet for the next several decades to centuries even if emissions were cut off immediately. Therefore, a changing climate must be built into the description and evaluation of baseline conditions (see below). This baseline can then be used as the basis for a robust no action alternative analysis and to aid in the analysis of the effects of the action alternatives. The Forest Service should project and evaluate climate change impacts on resources over time as part of its description of the existing environment and evaluate the effects of the proposed action, as well as the efficacy of mitigation measures, against that changing baseline. Changes in the baseline might include shifts in habitats or ecosystem types or the physiological condition of certain species over time. Taking these changes into account would address the fact that effects that might be minor at the outset of the action can become more significant over time, and mitigation measures that offer protection at the outset of the project might become more or less effective as a specific area or species responds to the impacts of climate change.

National Forest Management Act

The National Forest Management Act of 1976 (NFMA), 16 U.S.C. § 1600 et seq., provides the legal foundation for the national forest planning process. The NFMA requires the Forest Service to develop and periodically revise land and resource management plans for all national forests, coordinated with planning efforts by state and local governments and other federal agencies. 16 U.S.C. § 1604(a). The Forest Service must take a "systematic, in-

terdisciplinary approach to achieve integrated consideration of physical, biological, economic and other sciences." 16 U.S.C. § 1604(b).

The NFMA provides important direction to the Forest Service to "provide for diversity of plant and animal communities" in the planning process. 16 USC § 1604(g)(2). In the current era of climate change, this requires developing plans that will provide for that diversity, despite a changing climate. Providing for the continued existence of biological diversity may be considered the very definition of adaptation. In essence, the NFMA requires that national forest plans become climate adaptation plans.

Box 1. Quantifying emissions

As a general approach, the Forest Service should first assess and, wherever possible, quantify or estimate greenhouse gas (GHG) emissions by type and source by analyzing the direct operational impacts of their proposed actions. Assessment of direct emissions of GHG from on-site combustion sources is relatively straightforward. For many projects, energy consumption will be the major source of GHGs. The indirect effects of a project may be more far-reaching and will require careful analysis. Within this category, agencies should evaluate, *inter alia*, GHG and GHG-precursor emissions associated with construction, electricity use, fossil fuel use, downstream combustion of fossil fuels extracted or refined by the project, water consumption, water pollution, waste disposal, transportation, the manufacture of building materials, and land conversion.

Because failure to conserve carbon sinks results in direct and quantifiable GHG emissions as well as indirect effects from reduction in carbon sequestration, the GHG effects of destruction of carbon sinks should be analyzed as part of the plan evaluation. The GHG effects of destruction of carbon sinks should be analyzed both in terms of carbon already stored in the forest and soil itself and in terms of the forest's ongoing carbon-capturing properties. Such an analysis requires that an initial inventory of carbon storage potential be conducted for each forest. The environmental review should assess and where possible quantify all the various component carbon pools – live trees, other vegetation, dead trees or vegetation (coarse, woody debris and snags), logs, litter, duff, and mineral soil – and the fluxes of carbon to and from these pools, due to natural processes like decay and fire, and those associated with management, harvest and/or manufacture of extracted resources, including the burning of fossil fuels needed to remove, transport, and process those materials. In conducting this assessment, fluxes associated with fire management and the restoration of resilient forest structure should be accounted for separately. Net fluxes from terrestrial pools to the atmosphere may occur from management activities, such as prescribed and natural fire management, but may be considered beneficial, if they enhance the long-term carbon storage ability of the ecosystem and enhance ecosystem integrity.

Climate Change Considerations in Land Management Plan Revisions

On January 13, 2009, the Forest Service issued *Climate Change Considerations in Land Management Plan Revisions*. This document provides the service guidance on how to integrate climate change into NEPA analysis and documents. The guidance document instructs the service to integrate climate change issues into planning documents in several ways:

1. Discuss the role of climate change in the planning documents.
2. Provide analysis at the appropriate scale and use the best climate change information available.
3. Integrate climate change into the plan components based on the results of the comprehensive evaluation.
4. Develop a monitoring program for the revised plan with an awareness of climate change.
5. Tie into higher scale (multi-state, regional, or state-wide) climate change strategies as appropriate to gain collaborative support and efficiencies for climate change in land management revisions.

On the following pages, we describe a framework for evaluation that allows for the incorporation of these ideas into a forest plan that addresses climate change adaptation.

V. RESOURCE PLANNING: FROM SUSTAINED YIELD TO RISK MANAGEMENT

Since its inception, natural resource management has been based on an assumption that "Nature, if left alone, will take care of Herself." Certainly, this understanding has provided the basis for wilderness and national park management, in which "natural conditions" could be maintained by protecting an area from management intervention and leaving it "untrammeled" or "unimpaired for the benefit of future generations." But, this philosophical position is also at the root of more interventionist approaches in which nature is assumed to provide the baseline, and management improves upon it. The fields of forestry and watershed, range, and wildlife management intervene in various ways to increase yields of timber, water, forage, and game over and above levels produced without management intervention. Often these activities result in undesirable exigencies, such as reduced water quality or degraded habitat for non-game species. The field of environmental impact analysis developed to assess the degree of negative impact – usually relative to the ideal of Nature, left alone.

For most of its history, the assumption of a reliable natural baseline upon which management could improve was the norm. Plans were developed to improve timber yield, forage production, or hunting and fishing opportunities, and undesirable consequences were measured relative to the "no action alternative," usually the alternative involving the least intervention. In recent years, the accumulating negative effects of past management have been recognized as causing long-term damage, prompting efforts to "restore" natural conditions that, once established, would be capable of maintaining themselves. In these cases, the implications of the "action" and "no-action" alternatives are reversed (i.e., the no-action alternative results in continued environmental degradation), but the environmental impact is still assessed relative to an assumed standard of "natural conditions." In a review of the changing context of natural resource policy, Craig (2009) observes:

> One of the assumptions that pervades [American environmental and natural resources law] is that anthropogenic change is unnatural and degrading, but also non-transformative and hence reversible. Indeed, this assumption sets up environmental and natural resource law's most basic paradigm of regulation and management: preservation and restoration…More specifically, current law assumes that, whatever humans do, the baseline attributes of the system – temperatures, precipitation and hydrology, soil conditions, air quality, species assemblage – will remain more or less intact.

The advent of global environmental change, most notably climate change but also pressures like invasive species, land use change, and changes in atmospheric chemistry, has forced reconsideration of the assumption that Nature can take care of Herself. Wilderness and park managers have known for decades that designation alone is not sufficient to protect ecosystems and rare species from the ravages of plant invasions, novel predators, and air pollution. More recently, the effects of fire suppression and atmospheric deposition of nutrients emanating from outside protected areas have been shown to change ecosystem function inside protected areas. Even the most remote corners of the earth are affected (Vitousek et al. 2000). Most recently, global climate change has begun to alter even our most protected areas, and even more extreme change is projected over the next century (Hobbs et al. 2010).

Such realizations led Craig (2009) to argue for "an across-the-board shift in legal objectives, from preservation and restoration to the improvement of resilience and adaptive capacity." He goes on to state that "it is worth emphasizing that climate change adaptation law and policy, by definition, cannot be preservationist…Specifically, both regulatory goals and the legal mechanisms for accomplishing them will have to be centered on the concept of change itself." Of course, there are clearly some qualities of the environment, such as roadlessness, that are amenable to preservation, so Craig's conclusions must be restricted to the qualities of dynamic ecosystems, particularly to ecosystems of the modern age that cannot be expected to remain within their historical bounds. Nevertheless, Craig is correct to observe, "As land, air, and water temperatures generally increase, patterns of precipitation alter in terms of both amount and timing, and species shift as best they can to cope, "restoration" and even "sustainability" have the potential to become close to meaningless concepts. We are moving along an at least somewhat unpredictable path to an as yet unpredictable final destination…"

Under these circumstances, it can no longer be assumed that the baseline condition of Nature is self-sustaining, with manipulations conducted to improve performance relative to this baseline. The traditional mode of conservation – that of leaving places alone – cannot be assumed to protect the objects of conservation (forests, rangelands, wildlife) while unprotected areas are exploited. Under the pressures of global change, it must be acknowledged that many objects of conservation are at risk wherever they are found, and the traditional natural resource management paradigm of modifying ecosystems to increase yield

must change to a new paradigm of managing wildland ecosystems to minimize loss – specifically loss of the ecosystem composition, structure, and function that yields the benefits we seek from wildlands. Natural resource management must change from a paradigm of maximum sustained yield to a paradigm of risk management.

IV. SUSTAINABILITY AND THE PREVENTION OF LOSS

The idea of managing wildland ecosystems to avoid loss of the benefits they provide is not new; indeed, it has been at the heart of discussions of sustainable ecosystem management for over two decades (IUCN-UNEP-WWF 1980). The classic definition of sustainable development, provided by the Brundtland Commission in their 1987 report, *Our Common Future*, referred to meeting "the needs of the present without compromising the ability of future generations to meet their own needs." They noted, "Species and natural ecosystems make many important contributions to human welfare. Yet these very important resources are seldom being used in ways that will be able to meet the growing pressures of future high demands for both goods and services that depend upon these natural resources." In helping to define sustainable forestry a few years later, Franklin (1993) echoed this theme, proclaiming that preventing the loss of "productive potential," the combination of the genetic diversity of the living world and the "productive capacity" of ecosystems, including soil fertility, and water and air quality, must become the principal objective of natural resource management. Morton (1999) expanded on the concept of productive potential, describing an accounting framework for the "Total Economic Value of Wildlands" that recognized not just the direct-use and biodiversity benefits of wildlands, but also non-use and off-site values of wildland ecosystems, including often-overlooked benefits of wildlands, such as the habitat they provide for pollinators and natural agents of pest control.

Concurrent with this line of reasoning, ecological economists developed the notion of "ecosystem services" to account for the myriad benefits produced by managed and unmanaged ecosystems. According to the Millennium Ecosystem Assessment (2002), ecosystem services are recognized in four categories: 1) provisioning services (e.g., food, drug precursors, renewable energy); 2) regulating services (e.g., carbon sequestration, waste decomposition, water regulation/flood control); 3) supporting services (e.g., soil formation, nutrient cycling); and 4) cultural services (e.g., recreation, scientific discovery, spiritual inspiration). Like Brundtland and Franklin, the Millennium Ecosystem Assessment recognizes biodiversity conservation as fundamental to both the supply and the resilience of ecosystem services, upon which the human species is, in turn, "fundamentally dependent" (Millennium Ecosystem Assessment, p.v).

In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change reviewed a number of impacts on biodiversity associated with anticipated changes in climate worldwide and concluded, "Overall, climate change has been estimated to be a major driver of biodiversity loss in cool conifer forests, savannas, mediterranean-climate systems, tropical forests, in the Arctic tundra, and in coral reefs… In other ecosystems, land-use change may be a stronger driver of biodiversity loss at least in the near term…" but "beyond 2050 climate change is very likely to be the major driver for biodiversity loss globally" (Fischlin

et al. 2007, p.241). The IPCC notes further that, "Although links between biodiversity intactness and ecosystem services remain quantitatively uncertain, there is high confidence that the relationship is qualitatively positive" (Parry et al. 2007). Thus, the IPCC has concluded that through its influence on biodiversity, climate change is likely to have direct negative consequences on the provision of ecosystem services. In response, they prescribe "an iterative risk management process that includes both mitigation and adaptation, taking into account actual and avoided climate change damages, co-benefits, sustainability, equity and attitudes" (IPCC 2007).

So, what would a risk management process look like that sought to minimize the loss of ecosystem services from wildlands? As the IPCC notes, "risk is generally understood to be the product of the likelihood of an event and its consequences." The literature abounds with interpretations of this basic concept (Bartell 1998, Holton 2004, Australian Greenhouse Office 2005), but generally, consequences can be described in terms of the inherent sensitivity of a system or element to the event and the adaptability of that system or system element to the event (Füssel and Klein 2005). This combination of sensitivity and adaptability is known as "vulnerability." In contrast, the "likelihood of an event" combines the level of exposure with a measure of uncertainty or probability. Uncertainty also attends the assessment of sensitivity and adaptive capacity. Therefore, risk can be evaluated in terms of three fundamental components of vulnerability, exposure, and uncertainty, and risk management consists of actions taken specifically to reduce these three components.

Box 2. Assessing Ecosystem Service Values

The emerging field of ecosystem service valuation provides a useful framework within which to consider and account for the various vulnerabilities posed by climate change. As the "end products of nature that yield human well-being" (Boyed and Banzhaf 2005), ecosystem services represent a way of evaluating the results of the various conditions, functions and processes that may be influenced by climate change.

For example, climate change may lead to longer growing seasons, changes in the amount and timing of water supply, and changes in the mix of species of forest trees and their pests. Instead of trying to evaluate these changes separately, using different metrics, ecosystem service valuation offers that the end result of these changes is "less raw material" (in the form of timber), or "less recreation" (in the form of a compromised sport fishery). Because raw material, recreation, and other end products of nature are valued by people, their value – and changes in that value due to climate change – can be expressed in a common unit: dollars. In one analytical approach that could be used by the Forest Service to estimate climate impacts on ecosystem services, researchers (Esposito et al. 2009) used a modified "rapid assessment valuation" technique in which a geographic information system (GIS) is used to classify land according to its cover type/biome and assign proxies for initial ecosystem health and productivity of each biome to produce 24 different ecosystem services. Each of these ecosystem services, in turn, is assigned a monetary value from the literature, and the product of land area, multiplied by productivity (as modified by health), multiplied by value is the estimated baseline ecosystem service value. Next, coarse-scale information on expected climate change (IPCC 2007, Braat et al. 2008) is used to assign a percentage change in productivity for each biome-ecosystem service pair under 2°C and 4.5°C warming scenarios, and new ecosystem service values are calculated. The method provides a crude proxy for ecosystem services value but one that can easily be improved as more is learned about production and valuation of various services. Specific impacts on ecosystem service productivity (rather than gross percentage changes) based on the results of regional climate change models would yield further improvements.

V. RISK ASSESSMENT

Efforts to manage risk begin with a risk assessment, which characterizes risk in terms of vulnerability, exposure, and uncertainty, or, as Bartell (1998) has written, an inquiry into "What can go wrong?" and "How likely is it to happen?" To these questions, Bartell adds a third, "So what if it does?" as a gauge to determine if action is needed to address the risk. Bartell's rendering is intended to frame the topic of formal, quantitative risk assessment, but the framework applies to less formal assessment of vulnerability, exposure, and uncertainty, as well.

Assessing Vulnerability

The vulnerability of ecosystems and the species and physical elements they comprise depends on their inherent qualities and their ability to change or adapt to address new climatic conditions. A system may be considered vulnerable if it is sensitive to the effects of climate change and has limited ability to adjust to those effects. For example, the rocky intertidal ecosystem may be highly sensitive to the effect of rising sea level (and the inundation of the intertidal zone) but less vulnerable if its species are capable of colonizing new habitat created by the rising seas (i.e., high sensitivity, high adaptive capacity). Conversely, a mountain stream community that is dependent on cold summer water from a melting glacier may be very vulnerable once the glacier has melted away, despite the ability of its constituent species to move great distances (i.e., high sensitivity, low adaptive capacity).

Vulnerability of component species can be affected by the tolerance of individual organisms to the direct effects of climate change, the ability of populations to adapt to those conditions through the expression of genetic variability, and the ability to adjust behaviorally to changes in the ecosystem, such as prey shifts. For example, dandelions (*Taraxacum officinale*), which occupy a broad range of climatic conditions despite possessing essentially no genetic variability in the species, would not seem to be inherently sensitive to climate, whereas pikas (*Ochotona princeps*), which live only in the narrow alpine zone of western mountains, may be highly sensitive (Holtcamp 2010). Some species that are able to move easily may be able to adapt well to climate change even if they are inherently sensitive, provided that they can find the conditions they need to live, and others may be able to remain in place, if the population can produce offspring that are adapted to the new conditions. Pollen records indicate that some species have been able to survive dramatic changes in climate in a given place, even though the individuals making up the current population may themselves be quite sensitive. A vulnerability assessment would examine the species and physical elements of existing wildland ecosystems and determine which elements are sensitive, which have the ability to adapt, and what the likely consequences would be of anticipated changes in climate.

Because ecosystems are so complex, it is impossible to evaluate the vulnerabilities of every population, species, community, or other element of the system in question. Instead, risk assessment must focus on particular, high-priority elements or "key vulnerabilities." In its 4th Assessment Report, the IPCC (Schneider et al. 2007) suggested the follow-

ing criteria for identifying key vulnerabilities:

- magnitude of impacts,
- timing of impacts,
- persistence and irreversibility of impacts,
- likelihood of impacts and vulnerabilities,
- potential for adaptation,
- distributional aspects of impacts and vulnerabilities,
- importance of the system(s) at risk.

In other words, key vulnerabilities are likely to occur where the effects of climate change are large and intense, imminent, long-lasting, highly probable, and likely to limit the distribution of highly valued systems or system elements.

The IPCC uses their criteria to select key vulnerabilities across a broad array of systems: infrastructure, health, markets, agriculture, migration and conflict, as well as biological and geophysical systems. Focusing their thinking only on wildland systems, Running and Mills (2009) suggest that the most vulnerable elements of ecosystems are those that are 1) rare; 2) long-lived (with fewer generations in which to evolve); 3) isolated; 4) dependent on special habitats (especially those directly affected by climate, such as deep snow and ephemeral wetlands); and 5) susceptible to the kinds of disturbances likely to result from climate change (fire, floods, extreme drought). In addition to these "highly vulnerable" species, they recommend focusing on a) species with "a high public profile;" b) "data-rich" species; and c) "strongly interacting" species (keystone and dominant species). Species with a high profile are those that are appreciated for their strong contribution to ecosystems services, providing utilitarian, recreational, and aesthetic value. "Data rich" species provide the information necessary to devise potential conservation strategies, and "strongly interacting" species, by definition, control ecosystem function. Running and Mills apply their criteria specifically to species, but similar considerations may apply to features, such as glaciers, rare soils, riparian vegetation, and old growth forests. A vulnerability assessment should explicitly examine species and other ecosystem elements that meet these criteria and explore the factors that make them vulnerable.

The Sierra Nevada contains an abundance of species that match these criteria. According to the report of the Sierra Nevada Ecosystem Project (1996), the range is home to 400 endemic plant species, 200 of which are considered rare, and sixty-nine species of terrestrial vertebrates are considered "at-risk" by state or federal agencies (see SNEP report). In addition, numerous aquatic species are considered rare, including salmon, steelhead, and the critically endangered mountain yellow-legged frog. Some of these species are among the longest-lived and most isolated on earth (e,g. giant sequoia), and others have especially narrow habitat requirements and are susceptible to likely future disturbance (e.g. Pacific fisher). Several species, including the dominant trees (e.g., ponderosa and sugar pines, red and white fir, several oaks), pileated woodpeckers, and bighorn sheep, are both keystone and iconic to the region. In addition to species, rare habitats may be susceptible to

changes in fire regime or extreme drought (e.g. old growth, meadows), scouring from rain-on-snow events (riparian forests), or invasive plants (e.g. serpentine soils) likely to attend climate change. Even abiotic elements, including Lake Tahoe's clear, cold water, glaciers, and the snowpack itself, may be vulnerable.

The Forest Service should evaluate the national forests of the Sierra Nevada for key vulnerabilities according to the criteria above, and the nature of the climate threat to selected ecosystem elements should be fully examined and presented as part of the forest plan revision process. Such an assessment should include careful consideration of species and habitats of conservation concern. Appendix E of the 2001 Sierra Framework (USFS 2001) identified a number of ecosystem attributes to monitor as part of forest plan implementation including 75 non-fish vertebrates, 28 fish, 143 plants, 7 invertebrates, and 5 other species, as well as important attributes of fire regimes, old forest and other habitats, air quality, soil productivity, and other topic areas. Each of these attributes should be evaluated as a potential key vulnerability subject to the criteria above.

Assessing Exposure

The assessment of exposure to climate change requires both the examination of the probability and timing of future climate change and the likely changes to which ecosystem elements may be vulnerable. Changes in average temperature and precipitation are important first-order effects to which many species are sensitive, but there are many other effects that constitute exposure. As mentioned, melting glaciers may cause an increase in summer stream temperature. Increased droughts may stress plants and animals, and early onset of spring is already increasing exposure to fire activity (Westerling et al. 2006). More subtle changes are also expected. Plants may be exposed to pollinator shortages, and species range shifts may turn native species into invasive species. A risk assessment should examine the probability of exposure to these and other likely effects.

Assessing exposure probability involves combining information about likely climate change and its effects. Possible climate change can be assessed using predictive models that can be run under a variety of future scenarios. The results of these climate models can then be linked to other models to explore effects on future vegetation, fire regimes, hydrology, etc. (Lenihan et al. 2003). Where models agree with each other and produce similar results under multiple scenarios, the results can be viewed with a high degree of confidence. Where models produce a range of behaviors, prediction is less robust. In general, as the spatial resolution of models increases through the process of "statistical downscaling," agreement, and hence confidence, decreases. Millar et al. (2007) note, "We might feel confident of broad-scale future environmental changes (such as global mean temperature increases), but we cannot routinely predict even the direction of change at local and regional scales (such as increasing or decreasing precipitation)." Nevertheless, models can be used to explore possibilities, "game different scenarios, and gain qualitative insight on the range and direction of possible future changes without committing to them as forecasts" (Millar et al. 2007).

In addition to examining the probability of various changes in climate, an assessment of exposure should examine the consequences of those changes and where they are likely to occur in space and time. For example, sea-level rise is a highly likely and potentially devastating consequence of climate change but one that is limited in extent to coastlines. Increased fire activity is also to be expected, but exposure is likely to be of greater concern near homes than away from them. An exposure assessment should examine where the threat of increased fire activity is likely to be most acute, including how that threat will change with growth of the "wildland-urban interface." Potential future effects are many, and precise quantification of probabilities may be beyond the limits of existing tools and budgets. In these cases, future possibilities can be explored through "scenario planning," in which groups of analysts or stakeholders consider a broad range of possible consequences of climate change (Welling 2008).

In the Sierra Nevada, exposure to climate is already a risk factor affecting the fate of ecosystems on an annual basis. The dominant factor affecting life in California is the mediterranean climate, which is characterized by cool, wet winters and warm, very dry summers. The Sierra Nevada shares this climate with the rest of the state at all elevations; low elevations experience pleasant winters (between storms) and very hot, dry summers, while upper elevations experience cold, snowy winters and pleasant, dry summers.

One of the consequences of a mediterranean climate is that drought is a near certainty every year. The effect is to favor species that are tolerant of drought and its companion – fire. In the Sierra Nevada, fire is possible virtually every year, and studies of fire history have shown that fire regularly returned to some sites as frequently as every 2-5 years prior to the arrival of Euroamericans (Swetnam and Baisan 2007). As a result, dominant species in the Sierra tend to be those that are tolerant of fire, and in many cases species benefit from fire's effects. The role of fire in shaping Sierran ecosystems is evident at every elevation from the low elevation oak savannas and chaparral to the red fir zone. Stephens et al. (2007) estimate that prior to the era of fire exclusion, 4.5-12.0 percent of California burned every year, with ponderosa pine, mixed conifer, and red fir forests experiencing fire every 5-15 years. Low-severity fire predominated in the ponderosa pine and mixed-conifer zones, with 50 percent of the area burned in red fir consisting of crown fire.

Because of the importance of fire to California's vegetation, efforts to model vegetation response to climate have also modeled the response of fire. Lenihan et al. (2006) modeled changes in vegetation, ecosystem productivity, and fire across the state, and concluded that climate change is likely to result in increased mixed evergreen forest and grassland at the expense of shrubland, conifer forest and alpine/subalpine forest "due to reduction in effective moisture and increased fire." Though the analysis was not specific to the Sierra Nevada, published maps suggest that the pattern may hold in the Sierra as well, continuing a trend of increasing fire size and severity over the past several decades (Miller et al. 2008). Westerling et al. (2009) used different methods and models to estimate future large fire occurrence and concluded that all scenarios indicate increased burned area in the

Sierra Nevada. Increased fire activity may not be undesirable ecologically, but it does indicate a future of increasing exposure to fire's effects including danger to communities and rare ecosystem elements (e.g. old growth).

The modeling that has been done so far is at a scale that is too coarse to yield precise depictions of where and when vegetation changes are likely to occur. Thus, it is not currently possible to assess where exposure to the effects of climate change is likely to be most acute or where climate refugia are likely to occur. The best guess right now is that suitable climates for most species are likely to shift upward in elevation and northward in latitude, but actual patterns will be more complex. Urban et al. (2000) examined the factors controlling the distribution of the mixed conifer forest in the Sierra and concluded,

> While a crude space-for-time substitution would suggest that greenhouse scenarios would displace the mixed conifer zone upward perhaps hundreds of meters, this approximation ignores the interaction of supply and demand components of the water balance as represented in the elevation gradient. The mixed conifer zone is defined by both temperature and precipitation as these interact through lapse rates affecting supply (precipitation) and demand (temperature), the partitioning of snow versus rain, the duration of snowpack, and the length of the growing season; all of these patterns are overlaid on the template of terrain and soils.

Moritz et al. (2008) found idiosyncratic changes in the ranges of small mammals in Yosemite National Park over the past century, with some species shifting their range upward but some expanding downward, possibly due to recovery of previously degraded habitat. For the same reasons, response of water supply and aquatic ecosystems is difficult to predict, but generally, climate change can be expected to result in earlier snowmelt, lower base flows (as a result of increased evapotranspiration), and warmer water temperatures, even without a change in precipitation (Kapnick and Hall 2009, Medellin-Azuara et al. 2009). **A risk assessment conducted as part of the forest planning process should identify the direct and indirect modes of exposure to climate change and attempt to quantify them based on the best available science.**

Assessing Uncertainty

Because assessing the risks associated with climate change involves predicting future conditions, it is no surprise that it is fraught with uncertainty. Limitations in predictive ability derive not only from uncertainty about future conditions but from limitations of our understanding of current and historical conditions and the factors that drive ecosystem behavior. Table 1 lists only a few of the many sources of uncertainty that plague the assessment of risk from climate change. Each of these sources contributes to risk, and the better they are understood, the more complete the assessment of risk.

The sources in Table 1 are not an exhaustive list but only illustrate the range of unanswered questions. As vulnerabilities and exposure are assessed, many more uncertainties

will be revealed. It is critically important that these uncertainties be explicitly documented and incorporated into the risk assessment so that strategies can be developed to reduce uncertainty in the plan.

Table 1. Sources of uncertainty in understanding future climate change and its effects	
Data limitations	♦ Poor records of past climate surfaces ♦ Poor records of species occurrences
Limitations in ecological knowledge	♦ Habitat/range models ("climate envelopes") ♦ Limited understanding of species response to climate change ♦ Mortality rates and thresholds of mortality and recruitment ♦ Dispersal ♦ Species interactions ♦ Behavior of novel ecosystems ♦ Effects of interacting stressors
Modeli limitations and variability	♦ Limited understanding of the climate system ♦ Intermodel variation in model output ♦ Intramodel variation in model output ♦ Downscaling coarse resolution global output to generate higher resolution future climate (especially in topographically diverse terrain)
Vagaries of human behavior	♦ Future emissions scenarios ♦ Institutional resources ♦ Public support ♦ Planning horizon ♦ Shifting decision processes and loci

All of these uncertainties apply to the Sierra Nevada, but California may be an especially difficult place to predict the future due to the complexities of interacting factors, especially drought and fire, with vegetation change. As Lenihan et al. (2006) note in their assessment of future vegetation change in California:

> Considerable uncertainty exists with respect to the regional-scale impacts of global warming. Much of this uncertainty resides in the differences among different GCM climate scenarios and assumed trajectories of future greenhouse gas emissions, as illustrated in this study. Furthermore, California is in a transitional location between the very wet Northwest and the very dry Southwest. Although global precipitation is expected to increase under global warming, minor uncertainties in shifts in the stormtracks that separate these wet and dry regions could result in either wetter or drier conditions, rendering regional precipitation patterns especially difficult to forecast for California.

Under such an indeterminate future, assessing vulnerability and exposure will be especially difficult, placing added importance on the identification and reduction of uncertainty in land management plans. **At the earliest possible point in the forest plan revision proc-**

ess, the National Forests of the Sierra Nevada should identify and document known sources of uncertainty and data needs and initiate action to fill those gaps. Where data gaps remain, plans should include strategies to reduce uncertainties.

VIII. MANAGING THE RISK OF CLIMATE CHANGE IN WILDLANDS

In this paper, adaptation has been presented as the management of risk to reduce the adverse effects of climate change on ecosystem services received from wildlands. Actions that reduce the vulnerability to, exposure to, and uncertainty of climate change impacts contribute to adaptation. In this section, we describe how each of these aspects of risk can be managed to reduce the negative consequences of climate change to wildlands. Vulnerability can be reduced by addressing the effects of familiar anthropogenic stressors that exacerbate species' sensitivity to climate (e.g., roads, ORVs, energy development, habitat destruction) and by increasing adaptive capacity through the application of novel approaches, such as the active management of genetic and species diversity. Reducing exposure can be accomplished either by mitigating climate change itself or by mitigating the conditions created by it, and uncertainty can be reduced through research and monitoring, planning and scenario building, and adaptive management.

Unfortunately, which techniques will be most effective remains to be determined. Learning will require an experimental approach, tailored as appropriate to the specific lands on which they are applied. Silviculture and other intensive management actions will not be appropriate in parks and wilderness, but they may be tested on less-restrictive parts of the landscape. The important thing is that these methods are approached experimentally, with monitoring to facilitate rapid learning (Lawler et al. 2010). Finally, the diversity of administrative designations present in most landscapes can themselves provide a framework for experimentation that can accelerate discovery of approaches to climate change adaptation.

Reducing vulnerability

Depending on which ecosystem elements are identified as "key vulnerabilities" in the risk assessment, a variety of options are available to decrease vulnerability by reducing the sensitivity to climate change or by enhancing adaptive capacity. One of the simplest and most direct ways to reduce sensitivity is to address the stressors in addition to climate change that make species and ecosystems vulnerable to climate change. Reducing these anthropogenic stressors has been called the "low-hanging fruit" of climate change adaptation (Joyce 2009) and includes increasing the size and number of protected reserves, restoring altered disturbance regimes, halting and repairing the loss and fragmentation of habitat, managing invasive species, cleaning up air and water pollution, and addressing the legacy of past management. Steps that can be taken to reduce vulnerability caused by past management include protecting mature and old-growth forest, which has become rare, and halting the conversion of native forest to plantations, which have become too common (Noss 2001, Biringer 2003, Glick et al. 2009). Biringer (2003) succinctly notes, "Identifying and targeting for action the reduction of priority threats in a particular forest system will go far in ensuring that forest structure, composition, and function that increase

a forest's resilience are maintained." According to Galatowitsch et al. (2009), "Key resilience actions include providing buffers for small reserves, expanding reserves that lack adequate environmental heterogeneity, prioritizing protection of likely climate refuges, and managing forests for multi-species and multi-aged stands."

In addition to reducing susceptibility, actions can be taken to enhance the capacity of species and ecosystem elements to remain viable in the face of climate change. Enhancing adaptive capacity consists of actions to facilitate or improve the ability of species (usually) to respond favorably to climate change. The following are several examples of strategies to enhance adaptive capacity derived from the burgeoning literature of "adaptation options" (Noss 2001, Millar et al. 2007, Joyce et al. 2008, Biringer 2003, CNRA 2009, Glick et al. 2009, Running and Mills 2009).

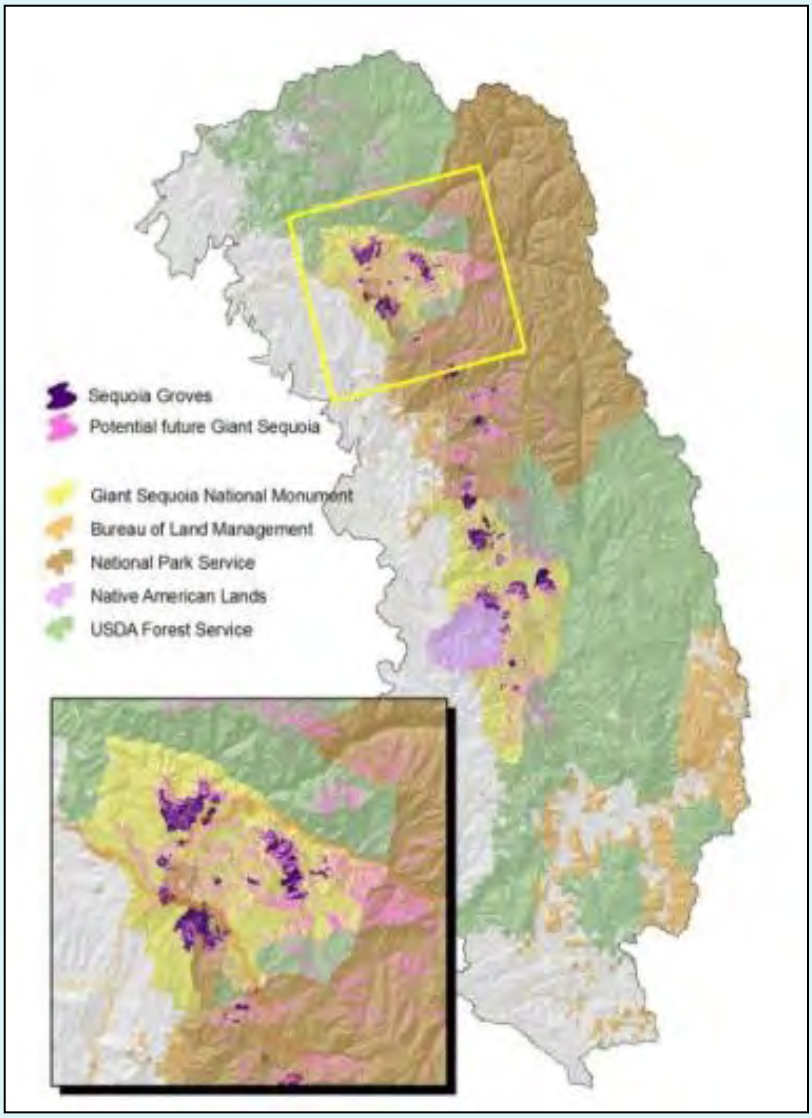
- *Promote connected landscapes.* Restoring and maintaining habitat connectivity provides species with the "room to roam" they need to respond to a changing climate. Without connected habitat, species may not be able to disperse to new locations exhibiting a favorable climate. Providing corridors and habitat connectivity facilitates the innate capacity to disperse in response to climate change.
- *Facilitate migration.* Where movement in response to climate change is blocked by habitat fragmentation or where species lack the dispersal ability to "keep up with" a changing climate, species can be physically moved across barriers (see Box 3). Of course, such decisions must be weighed extremely carefully to avoid the well-known consequences of the arrival of invasive species into novel habitats. McLachlan et al. (2007) offer guidelines for consideration of assisted migration.
- *Provide opportunities for rapid evolution.* The ability of species to adapt to new climates is enhanced where new genotypes are frequently exposed to new conditions. Restoration of disturbance regimes, such as fire, that provide for frequent opportunities for expression of genetic variability can accelerate the process of adaptation.
- *Maintain genetic diversity.* Running and Mills (2009) note, "Contemporary adaptive evolution is facilitated by a medium level of gene flow," suggesting that adaptation may be aided better in the short run by moving genes, rather than species. Maintaining habitat and dispersal connectivity among subpopulations will ensure continued opportunities for interbreeding and cross-pollination and help maintain adaptive capacity in populations. Also, guidelines for replanting following timber harvest currently require seedlings to be derived from local seed sources. Expanding the range from which seedlings are derived could help introduce new, better-adapted genotypes into the population.
- *Promote species diversity.* At the community or ecosystem level, adaptation and the maintenance of ecosystem services is well served by maintaining a rich diversity of species. Different species possess different thresholds of response to climate change. The loss of an individual species due to climate change will have a less dramatic effect on an ecosystem if other species are present that can fill at least part of that species' niche.
- *Manage for "asynchrony".* Populations are more vulnerable when all the individuals are in the same demographic stage. The current mountain pine beetle epidemic

exemplifies the consequences of a synchronous population, in this case due to the establishment of a single cohort of lodgepole pine throughout the West following widespread mining and fires in the late 19th century. Restoring disturbance regimes can help maintain a heterogeneous landscape with multiple age classes and help reduce vulnerability to climate change.

- *Enhance seed banks and ex situ conservation.* Owing to the unpredictability of the consequences of climate change, it is not too early to consider enhancing and expanding seed banks and other "off site" conservation efforts. Climate change may lead to localized extinctions, especially of isolated populations, and, in these cases, enhancing adaptive capacity will depend on the artificial reintroduction of stock maintained elsewhere.

Box 3. Reducing vulnerability by identifying future habitable sites.

To illustrate how to identify sites that may be managed or protected to reduce "key vulnerabilities," we examined the localities of giant sequoia (*Sequoiadendron giganteum*) groves within the mixed conifer forest and determined where sites may exist in the future that would be amenable to giant sequoia establishment and growth. The mixed conifer zone currently supports 84 percent of sequoia groves and so serves as a proxy for the "climate envelope" that could support giant sequoia under the current climate. Within this envelope, we examined the topography that may further explain giant sequoia's distribution locally. Specifically, we evaluated on which slopes, aspects, and landforms (valley flats; gently sloping toe slopes, bottoms and swales; gently sloping ridges, fans, and hills; nearly level terraces and plateaus; very moist steep slopes; moderately dry steep slopes; very dry steep slopes; cool aspect scarps, cliffs, canyons; hot aspect scarps, cliffs, canyons) giant sequoia is most common. Our analysis shows that, relative to the rest of the mixed conifer zone, giant sequoia tends to be found more on mesic, moderately steep, cool, north-facing slopes and less on south- and west-facing slopes and relatively flat ridges and bottoms.



These data suggest that under a warmer future climate, managers may look uphill toward moderately steep north-facing slopes to find locations where giant sequoia is most likely to grow (see map). While these results would no doubt be improved by additional data (e.g., soil depth, subsurface geology), they demonstrate how managers may use readily available data to begin to understand likely shifts in species ranges with climate change and devise strategies to enhance adaptive capacity through management, such as identifying where, in the event of future severe fire, giant sequoia may be introduced as part of the species mix despite its current absence.

- *Allow establishment of "neo-native" ecosystems.* The species that exist today have generally been around far longer than the ecosystems they currently compose, often in locales outside of their current range where the climate was historically suitable. As the climate changes, species can be expected to re-occupy their former range where suitable. Also, where species are to be introduced for purposes other than biodiversity conservation (e.g., timber plantations, pastures), review of the paleoecological record may provide insights into where species may thrive in their historically "native" range under an altered climate. Ecosystems so established may be considered "neo-native" in that they would consist of native species in their historical range, though in combinations that may not currently exist.

Reducing exposure

As with vulnerability, the climate adaptation literature indicates several options to manage risk by reducing exposure. Most important, but least directly affected by management, is mitigation of greenhouse gas emissions themselves. More under managers' control is the exposure to the effects, both direct and indirect, of climate change. Last, managers can identify and protect those places that are least likely to be affected by climate change, so called "climate refugia."

Mitigation. While the vast majority of emission reduction must be accomplished in the energy sector, there are several actions that wildland managers can take to prevent unnecessary release of greenhouse gases to the atmosphere. One of the easiest sources to control is the conversion of old growth to young forest. It is well established that when older forest is harvested and regenerated to younger forest, a net release of carbon dioxide results from the decomposition of coarse and fine debris and soil organic matter that occurs in the warm post-harvest environment (Harmon et al. 1990).

Another source of undesirable carbon emissions is from uncharacteristic wildfire. Wildfire is an essential disturbance process in most forest ecosystems, necessary to sustain their health and biodiversity. In many western forests, including those of the Sierra Nevada, frequent low- and mixed-severity fire maintained a structure and species composition that was resilient to inevitable fire, but a century of grazing, timber harvest, and fire exclusion has facilitated the build-up of fuels that, in the presence of a regional increase in temperature and fire season length (Westerling et al. 2006), now results in uncharacteristically large and severe fires (Miller et al. 2007) and the release of undesirable levels of greenhouse gases. Fire suppression can help limit these emissions in the short term, but as history has shown, fire suppression also contributes to the build-up of fuels and the inevitability of severe fire. Recent research indicates that by managing forests to reduce surface

fuels through thinning and the reintroduction of surface fire and favoring retention and development of large, fire-resistant trees, long-term carbon stocks may be stabilized or even increased (North et al. 2009). Restoration of fire-resilient forest structure and function can therefore help mitigate greenhouse gas levels in the atmosphere.

Another alternative that has been proposed to mitigate climate change is to aggressively manage forests to remove carbon from the atmosphere through the process of forest carbon sequestration. It has long been recognized that young forest stands accumulate carbon in live trees faster than do older stands, especially when the stocking levels of these younger stands are controlled to maximize stand-level productivity. This has led to proposals to convert native forest to plantations in order to maximize carbon sequestration at a landscape scale (Harmon et al. 1990). However, recent research has shown that, while live-tree productivity slows with stand age, old forests continue to sequester carbon through the build-up of coarse woody debris, forest litter, and soil organic matter, making such proposals considerably less attractive (Luyssaert et al. 2008). In addition, maximization of live-tree "yield", tends to result in a forest structure that contributes less to the conservation of biodiversity and is itself susceptible to the effects of climate change. It is increasingly clear that the best strategy for carbon sequestration is the maintenance of diverse, resilient, native forest structure and composition, including substantially more large trees than currently exist on national forest land in the Sierra Nevada.

Reducing exposure to the effects of climate change. While it is clear that forest management can affect exposure through its influence on greenhouse gas emissions, it is also clear that climate change has become inevitable, and risk management must focus on reducing exposure to its effects. One of the most likely of these effects is drought, due to more rapid melting of snowpack and increased evapotranspiration – even if precipitation does not change (National Research Council 2008). Increased drought will result in lower levels of summer streamflow and warmer water temperatures, with potentially devastating effects on aquatic ecosystems and impacts on the ability of ecosystems to provide water for human use. In addition to drought, extreme flood events are likely to increase as a result of rain-on-snow events where they have not occurred historically. To address these effects, actions will need to be taken to build up the buffering capacity of watersheds and restore riparian ecosystems degraded by grazing, water diversion, and channeling. The U.S. Climate Change Science Program offers a number of adaptation options for managers of Wild and Scenic Rivers that can be applied as well wherever riparian ecosystems are exposed to the effects of climate change (Table 2) (Palmer et al. 2008).

Among the emerging strategies to buffer the effects of climate change is to restore the water retaining capacity of river systems. Opperman et al. (2009) argue for actively reconnecting rivers to their floodplains. Similarly, Running and Mills (2009) suggest in some cases it may be helpful to construct "pico-dams" in headwater streams, tiny impoundments intended to retain runoff and maintain late-season flows. Such a strategy may be implemented through the restoration of wet meadows that were drained to facilitate livestock grazing and other uses. In any case, actions such as fish stocking or impoundment should

be done to sustain ecosystem integrity and functionality, not simply to enhance sport fishing or manage water supply. Closing and rehabilitating roads can also restore subsurface flow and slow the delivery of runoff to channels.

Table 2. Wild and Scenic Rivers: Adaptation Options for Resource Managers

- Manage dam flow releases upstream of the WSR to save flora and fauna in drier downstream river reaches.
- Use drought-tolerant plant varieties to help protect riparian buffers.
- Establish dry-year option agreements with willing private partners to ensure that flows during droughts remain sufficient to protect critical habitats and maintain water quality.
- Remove undesirable non-native species.
- Claim or purchase more water rights.
- Manage water storage and withdrawals to smooth the supply of available water throughout the year. Re-evaluate institutional mechanisms governing water use and management with an eye toward increasing flexibility (*e.g.*, apply forecasting to water management, improve water monitoring capabilities).
- Consider shifting access points or moving existing trails for wildlife or river enthusiasts.
- Establish programs to move isolated populations of species of interest that become stranded when water levels drop.
- Increase genetic diversity through plantings or via stocking fish.
- Increase physical habitat heterogeneity in channels to benefit aquatic fauna.
- Replant native riparian vegetation with drought-resistant vegetation in areas with higher temperatures and less precipitation.
- Restore the natural capacity of rivers to buffer climate-change impacts (*e.g.*, stormwater management in developed basins, land acquisition around rivers, levee setbacks to free the floodplain of infrastructure, riparian buffer repairs).
- Conduct river restoration projects to stabilize eroding banks, repair in-stream habitat, or promote fish passages from areas with high temperatures and less precipitation.

Another strategy that has been proposed to address the effects of future drought is to proactively thin or otherwise log the forest to reduce leaf area, thereby reducing evapotranspiration and interception loss of snow, resulting in greater spring and summer runoff. In experimental settings, it has been shown that an effect on runoff is detectable if more than 20-30 percent of forest cover is removed (Troendle and Leaf 1980). Consideration of such strategies, though, tends to neglect the well-established negative effects of the treatments themselves, including the effects of roads on hydrology and water quality, post-treatment fuel conditions, habitat and stand structure considerations, aesthetics, and cost. Still, Running and Mills (2009) consider much of the West to be above its "carrying capacity of leaf area," suggesting that thinning may help avoid "the kind of stress that allows insect epidemics and wildfire as natural thinning agents." Such statements, though, implicitly discount the benefits provided by these agents, including habitat creation without the consequences of road construction and soil disturbance. Reducing leaf area through restoration of open forest structure may help reduce exposure to the effects of drought in some cases, but given the expense, well-documented negative effects, and uncertainty regarding appropriate target conditions, it is not practical, or even desirable, to apply across broad landscapes.

Related to the issue of excessive leaf area in some forest types (ponderosa pine, mixed conifer) is exposure to the negative effects of fire, which can be expected to continue to increase under anticipated climate change (Westerling et al. 2006, 2009). Exposure to fire already has devastating impacts on homes in the wildland-urban interface, as well as on watersheds and forest ecosystems that are not adapted to severe fire (Aplet and Wilmer 2005). Proactively treating fuels can help reduce exposure in the wildland-urban interface and restore characteristic fire to low- and mixed-severity forest types, but, as with the reduction of leaf area, it is not practical or desirable to attempt to "fire-proof" the forest (Reinhardt et al. 2008). Instead, fuel treatments must be targeted to where they will yield the greatest reduction in exposure to fire's negative effects.

The Wilderness Society advocates an approach to comprehensive, landscape fire planning that involves dividing the landscape into three zones (Box 4, Appendix). The approach is based on the notion that in any landscape there is an area that must be managed for community protection, an area that is far enough away from communities that fire is of little concern, and an area in between that is far enough away from communities that it does not need to be managed strictly for their protection but that is close enough that the public is not likely to tolerate unmanaged fire. In this zone, fuel treatment should focus on restoration of fire resilience through thinning and controlled burning, at least until such a time as natural fire can be safely managed. Managing landscapes for fire protection adjacent to communities, fire resilience in the frontcountry, and the benefits of fire in remote locales can dramatically reduce the exposure of communities and ecosystems to one of the most serious anticipated effects of climate change while allowing other parts of the landscape to adjust to increased fire occurrence.

The current Sierra Nevada Forest Plan Amendment also recognizes a wildand-urban intermix (WUI) zone, but it divides the WUI into a "defense zone" of approximately one-quarter-mile, in which fuels are modified to minimize the threat to structures, and an additional "threat zone" of 1.25 miles, modified to aid suppression during high fire weather conditions. Beyond the WUI, the Amendment prescribes "strategic placement of area treatments" (SPLATs) to slow the spread of fire across the landscape. Such an approach not only includes unnecessarily large amounts of land in the WUI, thereby expending scarce resources where they are less likely to effect community safety, but it relies on an unproven, potentially dangerous, and counterproductive strategy for the remainder of the landscape. SPLATs are intended to keep fires small by functioning as "speedbumps" for the advance of fire. They only work if the rate of spread within the treatment is lower than the rate of spread outside; otherwise, they will have no effect or could even increase fire size. To function, they must be treated frequently, with potentially high maintenance costs. Further, they do not necessarily restore resilient structure to the forest, and they do nothing to facilitate fire's role in the ecosystem. The three-zone approach described above keeps community protection resources focused where they will do the most good, maintains ecologically resilient fire-prone forests, and allows fire to play its natural role where it presents no threat.

Climate Refugia. In some cases, it may be possible to avoid exposure to many of the effects of climate change by identifying and protecting those places where climate is unlikely to change. Noss (2001) notes that refugia from past unfavorable climates harbored much of the genetic and species diversity from which extant populations and communities derive and are important objects of conservation for the diversity they still harbor. Similarly, we can expect some places to be less prone to change in the future, and these places will be important to protect for their potential to harbor diversity in the face of regional climate change. For example, Noss cites the case of talus slopes in Iowa that occur in cold-air drainages below ice-filled caves that now support dozens of vascular plant species that are disjunct from boreal forests to the north and west and at least eight landsnail taxa that were previously thought to have gone extinct at the end of the Pleistocene. As downscaled climate models continue to improve, it may be possible to use them to identify places that will be less exposed to climate change and can be protected for their conservation value (Loarie et al. 2009), though much work remains to determine the appropriate size, configuration, etc., for such refugia.

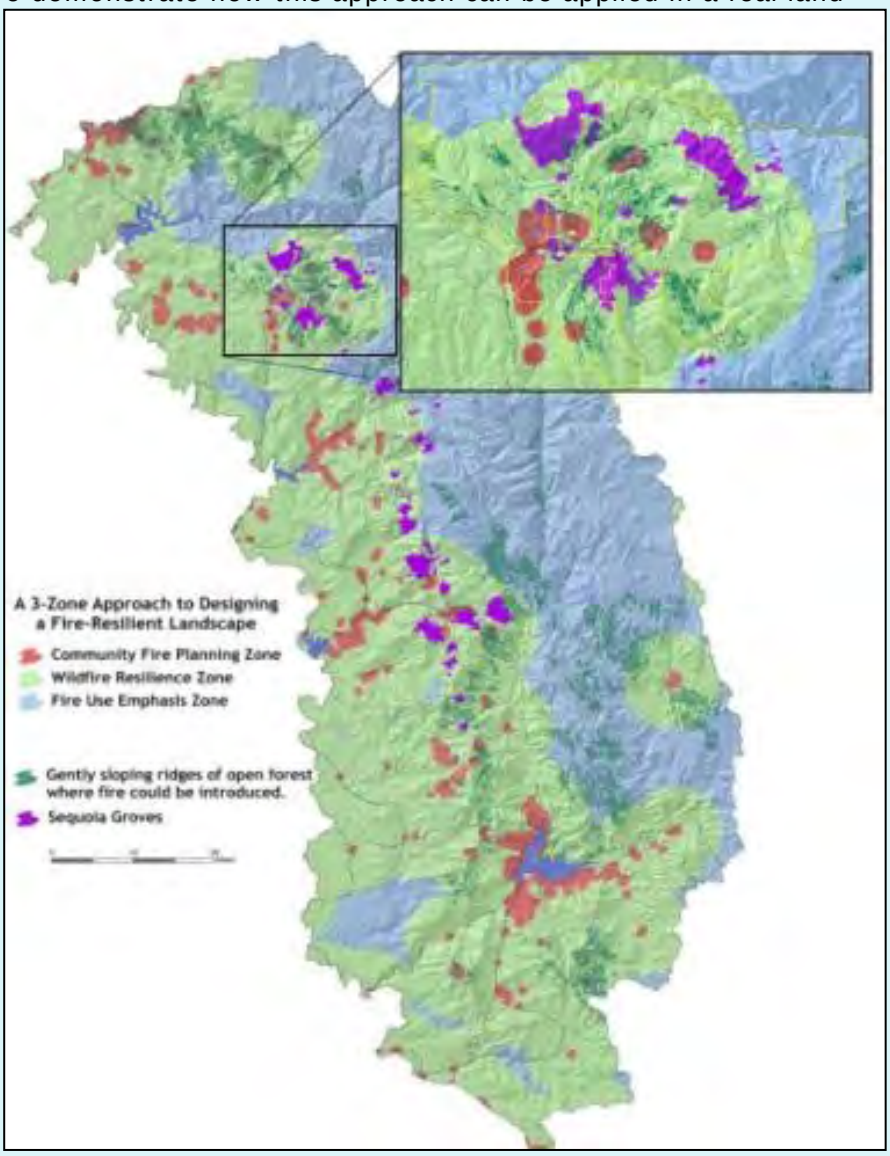
Reducing uncertainty

Uncertainty appears as an obstacle to climate change adaptation in virtually every treatment of the subject; reducing uncertainty may therefore be considered critical to progress in managing risk from climate change. Much uncertainty derives from insufficient knowledge of current conditions and management effects and may be reduced simply through increased emphasis on *monitoring*. Reducing uncertainty about the nature of ecological and social systems and their future behavior requires investment in *research*. Learning can be greatly accelerated by the process of *adaptive management* that combines aspects of both research and monitoring to reduce uncertainty. Where knowledge of the future is especially high and control over the consequences of climate change is low, *scenario planning* may be used to prepare for possible outcomes, thus reducing uncertainty and anxiety over how to respond.

Monitoring. A major impediment to the reduction of uncertainty regarding future impacts of climate change is simply a lack of knowledge of current baseline conditions and the ability to detect change in the future. The U.S. Climate Change Science Program (Kareiva et al. 2008) identifies establishing baseline conditions and monitoring as key elements of impact assessment necessary to support adaptation. In their review of the climate change adaptation literature, Glick et al. (2009) identify increased monitoring as one of five general principles of adaptation. Monitoring is needed not only to detect the effects of climate change but to assess the success of adaptation actions.

Box 4. Reducing exposure by designing a fire-resilient landscape.

In any landscape, there are places, usually close to communities, where fire should be excluded and fuels treated to minimize damage. Such places may be called the Community Fire Planning Zone to emphasize up-front preparation. Elsewhere, there are places that are far enough from communities that fire does not directly threaten safety, and natural fires can be managed for their benefits. This zone may be labeled the Fire Use Emphasis Zone to focus attention on the use of fire for resource benefit. In between, community concerns will likely result in suppression of unplanned fire, but controlled burns can be used under prescribed conditions to improve the resilience of vegetation to fires that escape initial attack. We call this the Wildfire Resilience Zone. To demonstrate how this approach can be applied in a real landscape, we mapped the Community Fire Planning Zone as the area within a half-mile of communities and the Wildfire Resilience Zone as the area extending out from there another five miles in the southern Sierra Nevada ecoregion (see Appendix for description of methods).



Our analysis of the southern Sierra ecoregion (see map) shows that the Community Fire Planning Zone occupies a tiny fraction of the landscape, but the Wildfire Resilience Zone is substantial. This zone, which includes almost all sequoia groves, is where fuel treatment activities to restore natural fire regimes should be focused. Here, restoration treatments are likely to be most efficiently implemented where light to moderate fuels can be treated using prescribed fire alone. To aid in the location of these sites, we have superimposed on our three-zone map the location of gently sloping ridges supporting dry, ponderosa pine and mixed-conifer forests. Such an analysis can be used to guide the location of fuel treatment projects intended to break up fuel through management action.

Monitoring will be needed at all scales at which climate change is a concern. The longest-established forest monitoring program, Forest Inventory and Analysis, was developed to detect only changes in timber volume and productivity but has been modified over the years to address ecosystem carbon pools, invasive species, and other aspects relevant to climate change, and may be used to establish background conditions and rates of change. Site-level monitoring of project impacts has lagged appreciably (DeLuca et al. in press). To have a significant effect on uncertainty, monitoring must become standard practice. This will require commitment of time, effort, and financial resources to the development and implementation of an effective project-level monitoring program. **A realistic and effective monitoring plan should be included in each forest plan.**

Research. Many of the uncertainties associated with climate change can only be addressed through formal research, and research will continue to be essential to climate change adaptation. Through interviews and discussions with scientists, government officials, and natural resource managers, Shaw (2008) identifies a bevy of research topics that would help advance climate change adaptation in California and that would no doubt aid risk management in the national forests of the Sierra Nevada. A sample of research topics from that list illustrates the range of important questions yet to be answered:

- Test modeled range shifts with historical and current species observations, and monitoring plans for areas where species are predicted to be extirpated.
- Develop regional climate models parameterized for California for use in impact/vulnerability studies at scales relevant to management.
- Historical validation of AOGCM performance in California, with climate variables that are relevant to resource management (e.g., t_{max} in the summer, t_{min} in the summer, evapotranspiration, seasonality of precipitation).
- Develop methodologies to integrate process-based and species-based models and apply them to California management areas.
- Develop impact assessment of multiple interacting stressors on vulnerability of the state's natural resources, particularly focused on land use change, fire and invasive species and their interaction with species responses to climate change.
- Understanding vulnerabilities under extreme events.
- Developing a research process that explicitly engages resource managers in identification and development of research needs
- Developing a body of vulnerability and adaptation information that is readily accessible to resource managers and decision makers
- Develop understanding of the implications of hotspots of genetic diversity for meeting long-term biodiversity goals.
- Develop methodologies that prioritize development of protected areas for sustaining existing species across a climatic gradient, incorporate important corridors for species/system movement, and target processes that sustain biodiversity (including evolutionary processes).
- Develop methodologies to integrate vulnerability information from fine-scale modeling and experiments with the planning-scale methods for the development of short- and long-term priorities.

- Develop methodologies for assessing adaptation costs for alternative conservation strategies and triage criteria.

Accomplishment of much of this research will require cooperation with the agencies managing the land. Reduction of future uncertainty can be greatly accelerated if the managing agencies work closely with scientists to facilitate, advise, and assist in climate change research.

Adaptive management. When aspects of monitoring and research are combined into an approach to management that is explicitly intended to accelerate learning, it is called "adaptive management." According to Innes et al. (2009), "adaptive management can be viewed as a systematic process for continually improving management policies and practices by monitoring and then learning from the outcomes of operational programmes. Within the context of climate change,…adaptive forest management is one tool that could enable managers to adjust the structure and the consequent functioning of the forest ecosystem to resist harmful impacts of climate change, and to utilize the opportunities created by climate change." (p.137). Typically, adaptive management follows a continuous cycle of planning, implementation, monitoring and evaluation (DeLuca et al. in press).

Adaptive management is sometimes described as either "passive", when management is modified simply as a result of observing the consequences of past action, or "active", when management actions are designed explicitly as an experiment to test competing hypotheses (Kareiva et al. 2008). Whatever the case, monitoring is essential to the process of evaluation and modification. Experience has also shown that adaptive management functions best when it involves the public in the identification of the hypotheses to be tested, in the design of the monitoring strategy, and in the implementation of the monitoring program (Bliss et al. 2001, Innes et al 2009). So important is stakeholder involvement to the development of the "social license" necessary for management action that "the entire concept has been renamed adaptive collaborative management or adaptive co-management" (Innes et al. 2009).

Scenario planning. When uncertainty is high and the "controllability" of the outcome is low, there may be little that managers can do to design management strategies "to resist harmful impacts of climate change" as referred to above (Innes et al. 2009). In these cases, uncertainty, or at least anxiety over the uncertainty of climate change, can be reduced by scenario planning. Scenario planning is a (usually) qualitative process "that involves exploration and articulation of a wide set of possible or alternative futures" (Baron et al. 2008). Scenarios are plausible stories or narratives describing what might happen under an uncertain future. Their development can be aided by quantitative data or models, but the idea is to explore a range of possible futures, rather than try to predict a single "most-likely" case. When developed in the context of broad stakeholder participation, they can increase understanding of key uncertainties, facilitate the incorporation of alternative perspectives into planning, and improve the capacity for adaptive management (Welling 2008).

The Grand Experiment: a diversity of management approaches.

This paper began with the assertion that global change requires reconsideration of the assumption that Nature is self-sustaining. The pressures of climate change, invasive species, atmospheric pollution, and land-use change are steadily reducing the likelihood that Nature, if left alone, can take care of herself. This long-held belief, the essence of wilderness management but also the basis for environmental impact analysis, holds that ecosystems, if released from human control and influence, will restore and maintain their historical composition, structure, and function. This is not to say that past management actually left things alone. Clearly it did not, but the prevailing tenet of protected area management for the past century has been that a "hands-off" approach was sufficient to sustain ecosystems (Cole and Yung 2010). It is increasingly clear that this management option, the *recovery* of natural conditions following release from human control, is no longer viable. We now live in a world in which we have only three options: we can *resist change* by investing human energy to maintain historical composition, structure, and function, a process otherwise known as *restoration*; we can *accept change* by releasing ecosystems from human control, understanding that they will *drift* into new and different conditions; or we can *guide change* by intentionally *transforming* ecosystems into a novel condition, perhaps one that will be more resilient to further change or into an entirely unprecedented form managed for one or more ecosystem services that have been lost from wildland ecosystems (Aplet and Cole 2010).

These three management options encompass many of the adaptation strategies described above. Strategies of reserve establishment, protection of old growth and corridors, and monitoring align well with the option to accept change. Reestablishing fire and flood regimes and reconnecting flood plains are familiar restoration actions, whereas more aggressive activities, such as assisted migration and the establishment of "neo-native forests," fit in the vein of transformation. The problem is that we just don't know which of these options will best serve adaptation. Some are well-established, proven conservation methods, while others entail significant risk, due to the lack of a track record, but may nevertheless be worth testing (Lawler et al. 2010).

In recognition of this fact, the IPCC (2007) concluded, "A portfolio of adaptation and mitigation measures can diminish the risks associated with climate change," a judgment echoed by Millar et al. (2007), who stated, "Managing in the face of uncertainty will require a portfolio of approaches, including short-term and long-term strategies, that focus on enhancing ecosystem resistance and resilience…as climates and environments continue to shift." We are going to have to try different approaches in different places, some with an emphasis on restoration, some on transformative activities, and some places we simply leave alone and observe.

So where do we get this portfolio of sites? Fortunately, it is all around us. Virtually every landscape is a mixture of different land classes, each managed with different emphases. The International Union for the Conservation of Nature (IUCN 2008) has classified the world's protected areas into seven categories, from "strict nature reserves," managed

solely for the protection of biodiversity, to areas with "sustainable use of natural resources," equivalent to our general national forest or BLM-managed lands (Table 3).

Table 3. IUCN Protected Area Categories

IUCN Category	Definition
Category Ia: Strict nature reserve	Strictly protected areas set aside to protect biodiversity other features, where human visitation, use and impacts are strictly controlled and limited.
Category Ib: Wilderness area	Usually large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation.
Category II: National park	Large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area.
Category III: Natural monument or feature	Areas set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove.
Category IV: Habitat /species management area	Areas designated to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.
Category V: Protected landscape/seascape	A protected area where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value.
Category VI: Protected area with sustainable use of natural resources	Protected areas that conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. In general, unreserved portions of national forests and BLM-managed lands are typical.

Each of these classes is governed by a different set of constraints, policies that allow certain activities and prohibit others. Table 4 details some, though by no means all, of these differences to illustrate the range of activities that distinguish protected area categories. At one end of the spectrum are those classes where observation and acceptance of change will predominate; at the other end, more options exist to pursue more aggressive intervention. In general, more aggressive action is appropriate where ecosystems are most degraded, while areas in good condition require only observation.

In any landscape, this range of protected areas can be utilized to provide the "portfolio" of adaptation approaches called for by the IPCC. A well-balanced portfolio will have some of each category, and the ideal landscape will be *distributed across relevant environmental gradients* of elevation and latitude and *connected* across those gradients. Such a landscape provides the ideal experimental setting for testing different adaptation approaches. Unfortunately, while most landscapes contain some mix of protected area categories, few, if any, meet the criteria of the ideal landscape: well distributed and connected across environmental gradients. Achieving such a configuration will require changes in the alloca-

Table 4. "Treatment constraints" on protected area management options. [1]

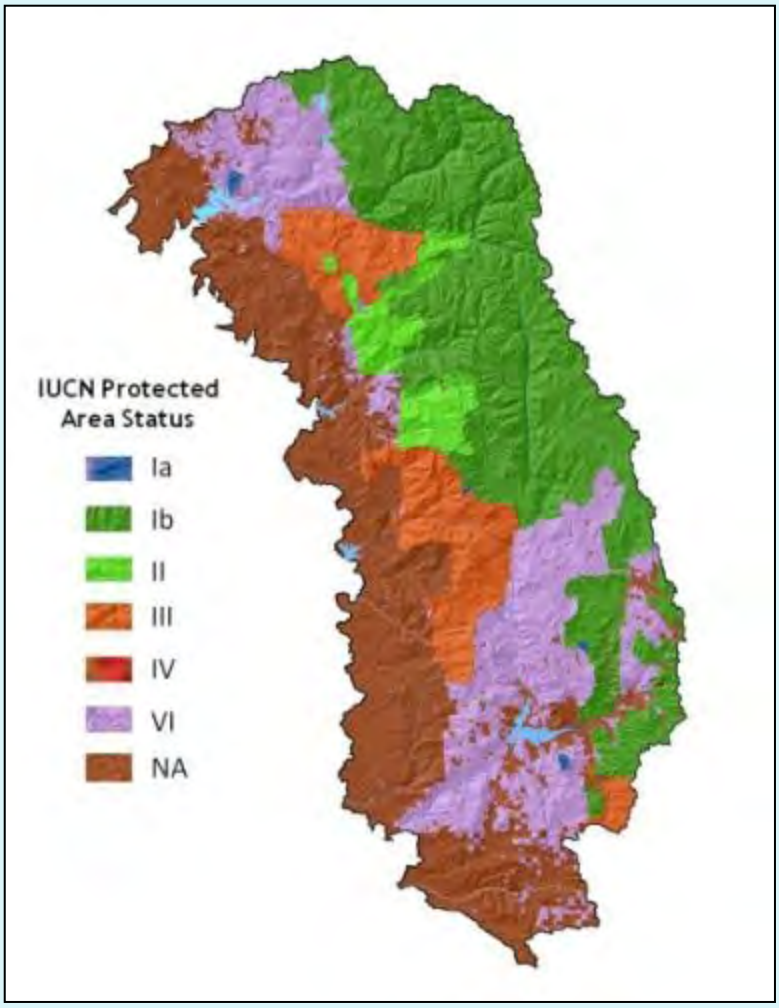
ACTIVITY	Ia. Strict Nature Reserve	Ib. Wilder-ness Area	II. National Park	III. Natural Monu-ment	IV. Habitat Manage-ment Area	V. Protected Land/Sea-scape	VI. Sustain-able Use Area
Monitoring	X	X	X	X	X	X	X
"Light-touch" scientific research	X	X	X	X	X	X	X
Education	X	X	X	X	X	X	X
Low-impact recreation/non-motorized visitation		X	X	X	X	X	X
Fishing		X	X	X	X	X	X
Subsistence activities		X		X	X	X	X
Hunting		X		X	X	X	X
Livestock grazing		X		X	X	X	X
Motorized and tourism infrastruc-ture			X	X	X	X	X
Prescribed fire			X	X	X	X	X
Non-extractive vegetation man-agement			X?	X	X	X	X
Intensive research				X	X	X	X
Drainage or irrigation					X	X	X
Cultivation					X	X	
Supplemental feeding					X	X	
Sustainable cultural use					X	X	
Sustainable resource extraction						X	X
Mining/Energy development							X

[1] Activities are intended to illustrate differences among protected area categories, not to catalog differences comprehensively.

Box 5. Reducing uncertainty by designing an experimental landscape "portfolio" of sites.

The Southern Sierra landscape contains an unusually diverse portfolio of protected areas (see map). We began our analysis with the assumption that the ideal "experimental design" to test climate change adaptation strategies includes the full range of protected area classes well distributed and well connected across the environmental gradients of the study area. To determine the representation and connectivity within protected area classes, we evaluated the elevational and latitudinal distribution of protected area classes as well as the size and connectivity of the most continuous patch within each category.

Our analysis shows that the southern Sierra landscape is dominated by two land classes, wilderness and unprotected lands, with the majority of the remainder in general national forest and BLM lands. There are no Category V Protected Landscapes and nearly no strict nature preserves or wildlife refuges. Non-wilderness national park represents four percent of the landscape, and the Giant Sequoia National Monument represents ten percent. Protected areas are generally well distributed with respect to latitude, but low elevations are dominated by unprotected lands, and wilderness is concentrated at high elevations.



Wilderness, national parks, natural monuments, and sustainable use areas all contain single patches that capture the vast majority of the regional variability in elevation, but no category contains a patch that captures the bulk of the variability in latitude. National forest planning provides an opportunity to increase the representation and connectivity of protected area classes by designating management areas within the national forests that extend the elevational and latitudinal gradients of other protected area categories.

tion of protected area categories. Many of these changes, such as the designation of research natural areas and the allocation of land to wilderness, can be achieved within existing administrative units. Others, such as the designation of national park land and wildlife refuges, will require changes in administration. Some of these changes can be achieved through administrative processes, including the national forest planning process, while others will require an act of Congress. Ensuring that these changes result in a landscape better configured for adaptation will require cooperation across all parties, including the involvement of the public in decision-making.

Such changes as these may seem insurmountable, but it has taken a century to achieve the configuration of our existing system of protected areas. There is no reason why concerted effort by all parties over the next several decades cannot result in improved configurations that position us better to adapt to inevitable climate change.

VII. Summary and Recommendations

The National Forest Management Act requires the Forest Service to take a "systematic, interdisciplinary approach" to planning that "provides for diversity of plant and animal communities." Historically, national forest planners assumed that ecosystem diversity and productivity were sustainable without intervention, and planning could focus on activities that enhance the delivery of favored outputs, including timber, game, and recreational activities, and mitigating the adverse impacts of those activities on ecosystem diversity and productivity. With time, the dependency of ecosystems on dynamic disturbance processes was recognized, but sustainability was assumed as long as dynamics remained within the "historical range of variability" (Aplet and Keeton 1999).

The advent of climate change challenges that paradigm. The prospect of climate-driven increases in invasive species, altered fire regimes, increased insect and disease outbreaks, increased frequency and intensity of drought and storms, decreased snow cover, altered phenologies of tightly linked species, and range shifts and the break-up of long-established plant and animal communities all threaten the future productivity and diversity of ecosystems and the goods and services we expect from them. Under such conditions, the sustainability of ecosystems cannot be assumed, and the focus of planning must change from the scheduling of outputs to the management of risk to ecosystem diversity and productivity from climate change.

Risk can be managed by breaking it down into its fundamental components of vulnerability, exposure, and uncertainty, assessing the status of each, and developing strategies to reduce them. Vulnerability is defined by the Intergovernmental Panel on Climate Change as "the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes." It is affected by both the innate sensitivity, or intolerance to climate change, of systems components (e.g., species) and their capacity to adapt through changes in behavior (e.g., migration) or genetics (i.e., evolution). Exposure consists of the degree of expression of both the direct effects of climate change (e.g., average temperature, extreme events, frequency, intensity, and dura-

tion of drought) and the indirect effects (e.g., fire activity, flooding, phenological shifts). Uncertainty is a general term encompassing both the known variation in probabilities of anticipated events and the limitations to our knowledge that derive from poor data, inadequate science, and unforeseen circumstances.

The first step in the risk management process is to identify "key vulnerabilities," or the specific elements of the ecosystem that will be the focus of assessment. Key vulnerabilities possess the following characteristics that make them especially worthy of management attention: susceptibility (affected by such qualities as rarity, longevity, isolation, dependence on special habitats, and sensitivity to climate-driven disturbance), value to the public, availability of information, and influence on the ecosystem. An open public process should be used in the identification of key vulnerabilities, as throughout the risk assessment and development of management strategies.

The next step is to assess the vulnerability, exposure, and uncertainty associated with each key vulnerability. This will involve assembling the best available science on the sensitivity and adaptive capacity of the species and ecosystem elements identified as key vulnerabilities, projecting likely (or evaluating scenarios of) climate change and its effects, and explicitly investigating sources of uncertainty, including limitations of data and critical researchable questions.

Managing to reduce vulnerability will require the development of strategies to reduce the sensitivity of species to climate change by protecting them from environmental stressors (e.g., habitat loss and degradation, noise, pollution) through the establishment of reserves protected from the influence of those stressors, by managing human behavior and recreational use (e.g., ORVs), and by restoring the quality of habitat and enhancing the condition of vulnerable elements (e.g. old growth). Vulnerability can also be reduced by enhancing the ability of vulnerable elements to adapt to climate change by preserving and restoring habitat connectivity, by promoting the diversity of genes, species, and landscapes, and, where species are blocked from moving in response to climate change, by helping species transcend barriers to movement.

Reducing exposure requires both mitigating carbon emissions and reducing exposure to the effects of climate change. Mitigation can be achieved by protecting and enhancing carbon storage in wildlands and reducing activities that add carbon to the atmosphere. In some cases, short-term increases in carbon release (e.g. prescribed fire) may be necessary to achieve long-term increases in carbon storage (e.g. old growth resilience). The first step is to assess the status of ecosystem carbon stores and understand what drives changes in those systems. Next, greenhouse gas implications of traditional resource management activities, such as logging, energy development, and transportation and recreation, must be understood. Last, steps must be taken to reduce emissions caused by such activities by eliminating forest conversion, reducing energy development and the use of fossil fuels, and restoring low-severity fire. In addition to mitigating greenhouse gas emissions, exposure can be reduced by addressing the effects of climate change through activities such as wa-

tershed restoration, fuel reduction near communities, mitigating disturbances that favor invasive species, and the protection of climate refugia.

Uncertainty can be reduced by enhancing our understanding of ecosystems and climate dynamics. One of the simplest ways to improve understanding is to increase knowledge of current conditions and the effects of management through comprehensive project-level monitoring. In addition, managers need to encourage and facilitate research. Adaptive management combines monitoring and experimentation to increase the speed of learning. Where unknowns cannot be overcome in time, scenario planning can be used to explore wise responses to a variety of possible future conditions.

Finally, learning can be enhanced by experimenting with different approaches on different parts of the landscape. In some places, restoration should dominate, and the emphasis should be on sustaining ecosystems and all their parts. In other places, new, creative approaches to building ecosystem resilience in the face of climate change must be tried, albeit with great care to avoid unintended consequences. In still other places, we will simply want to observe change and learn from it. The conservation effectiveness of protected reserves is well established, but just as important, the need for experimental "controls" will only become greater under adaptive management in the future. These different approaches should be tried across the landscape on different types of protected areas, from strict nature preserves to actively managed sustainable use areas. The ideal adaptive landscape consists of different protected area categories well represented and connected across the environmental gradients of elevation and latitude to facilitate the movement of species within each category in response to climate change.

If all of these steps are taken, forest planning can yield a robust approach to managing the risk of climate change. Adaptation will require identifying key vulnerabilities, assessing the risks to those ecosystem elements, and devising strategies to manage down each element of risk. Such strategies should be developed in the context of adaptive management that treats the landscape as an experiment that tests a portfolio of approaches, including abundant, well-connected reserves or experimental "controls." To facilitate the development of forest plans that incorporate such an approach, **the NEPA analysis <u>should</u> fully reflect and account for the following points:**

1. The Plan and EIS should explicitly account for future climate change through an open process that involves the public in the identification and assessment of key vulnerabilities and the development of strategies to sustain ecosystem services linked to their survival.
2. The selection of key vulnerabilities should involve the review of species and other ecosystem elements and processes that have been identified as of conservation concern and consider their vulnerability, their importance to people and ecosystem function, and the availability of information necessary to sound decision-making.

3. The Plan and EIS should include a risk assessment that employs the best available science to characterize vulnerability, uses state-of-the-art modeling to assess likely exposure to climate change and its effects, and documents sources of uncertainty.

4. The Plan and EIS should include specific strategies to reduce vulnerability by:
   a. Increasing the size and number of reserves protected from known stressors.
   b. Reducing the impact of livestock grazing on vulnerable ecosystems.
   c. Reducing the impact of recreational visitation by managing off-road vehicle use.
   d. Restoring degraded ecosystems by:
      i. Reintroducing fire where appropriate.
      ii. Closing and rehabilitating roads.
      iii. Repairing and reconnecting aquatic and riparian habitat.
      iv. Facilitating the development of old-growth forest.
      v. Increasing resilience to disturbance.

5. The Plan and EIS should include specific strategies to reduce exposure by:
   a. Mitigating carbon emissions by:
      i. Curtailing activities that emit carbon, including:
         1. Silvicultural conversion from old to young forest.
         2. Energy development (oil and gas leasing).
         3. Recreational activities.
         4. Administrative activities.
      ii. Facilitating carbon storage through:
         1. Forest protection.
         2. Restoration of low-severity fire and fire-tolerant forest structure.
   b. Reducing exposure to the effects of climate change by:
      i. Treating fuels around communities to protect them from fire.
      ii. Restoring periodic fire and fire-tolerant forest structure.
      iii. Restoring watershed function.
      iv. Minimizing disturbances that facilitate the spread of invasive species.
      v. Protecting climate refugia.

6. The Plan and EIS should include specific strategies for reducing uncertainty by:
   a. Including a detailed plan for adaptive management that can be implemented under realistic budget projections. Such a plan should include:
      i. A monitoring strategy.
      ii. A mechanism and schedule for review of monitoring data.
      iii. A mechanism for public involvement in adaptive management.
   b. Identifying critical research questions necessary for improving adaptation strategies and a plan for accomplishing necessary research.

7. The Plan and EIS should include detailed recommendations for management area designations and changes in administration to improve the representation and connectivity of protected area categories to facilitate an experimental approach to adaptation at the landscape scale.

Specific analyses that must be part of an adequate EIS include:

- Selection of "key vulnerabilities," based on vulnerability to climate change, importance, and availability of information. Species and other "topic areas" discussed in Appendix E of the 2001 Sierra Framework provide a good starting point for evaluation.
- Analysis of likely response to climate change for each key vulnerability, including range shifts, behavioral responses, and potential for evolutionary response.
- Analysis of likely climate change under reasonable foreseeable emission scenarios for the planning unit.
- Analysis of watershed condition and likely impacts of climate change on hydrology and aquatic ecosystems, and opportunities for restoration and road rehabilitation to enhance watershed function.
- Analysis of community vulnerability to wildfire , the location of wildland fuels that should be treated to protect communities from fire, areas where wildfire can be managed for ecological benefit, and opportunities to manage fuels to reduce negative ecological consequences of unwanted fires.
- Analysis of size, distribution, and connectivity of the existing protected area system and identification of additions that would enhance connectivity across environmental gradients.

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Appendix A. Analytical approaches to managing the risk of climate change: a case study of the southern Sierra Nevada Ecoregion

In this appendix, we provide examples of analyses that should be incorporated into the Plan development process to help manage the risk of climate change on the national forests of the Sierra Nevada. The range occupies a tension zone between the wet Northwest and the dry Southwest and is therefore at risk from future climate change but, because of its north-south orientation and long elevation gradients, may provide outstanding opportunities for climate adaptation. Examples illustrate how the three elements of risk – vulnerability, exposure, and uncertainty – can be considered and managed to reduce the consequences of climate change for the continued provision of ecosystem services. These examples are not meant to be exhaustive, or even sufficient, but merely to represent the kinds of analytical approaches that can be brought to the consideration of climate change in national forest planning.

We focus here on the Southern Sierra Nevada ecoregion, as delineated by the Sierra Nevada Ecosystem Project. This area occupies the southern limit of the Sierra Nevada coniferous forest before it transitions to the hardwood, shrub, and grass-dominated plant communities of the Tehachapi Mountains and Mojave Desert, and hence may be at risk of dramatic change as a result of climate-driven shifts in vegetation.

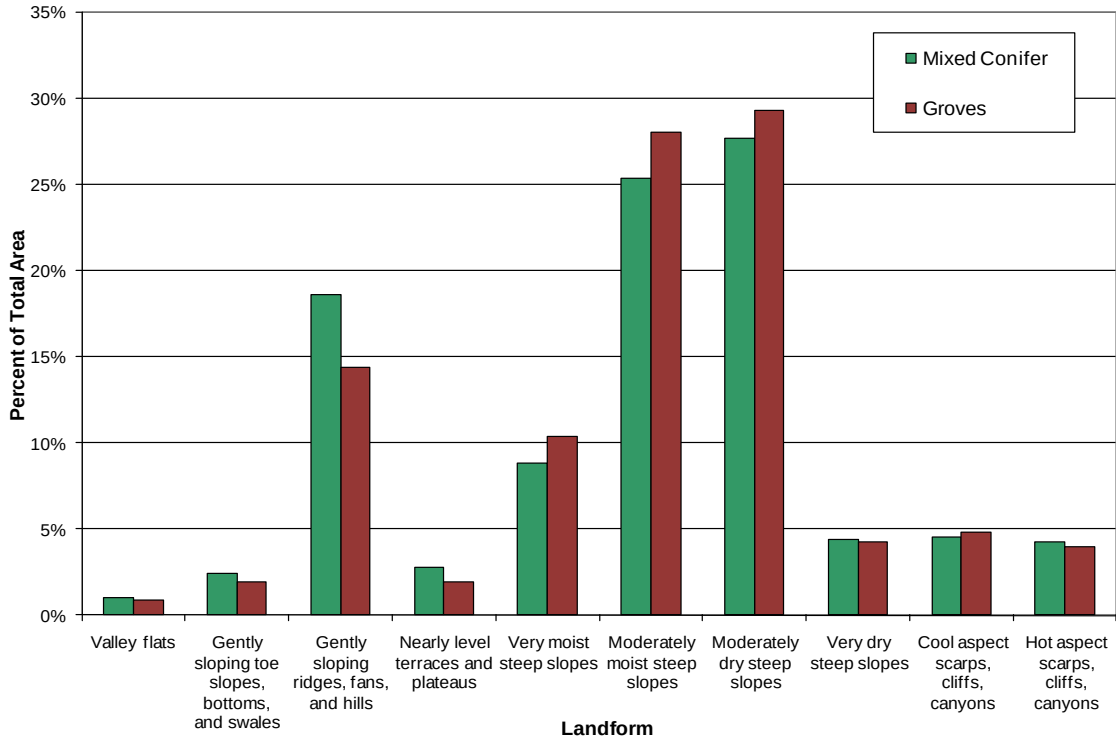
Analysis to support reduction of vulnerability in Sierra Nevada national forests. To illustrate the kind of analysis that could lead to enhanced adaptive capacity of a "key vulnerability" in the Sierra Nevada, we examined the current distribution of giant sequoia (*Sequoiadendron giganteum*) and determined where sites may exist in the future that would be amenable to giant sequoia establishment and growth. Giant sequoia is a rare and extremely long-lived species that occurs in isolated groves and is apparently dependent on specialized habitats, meeting most of the criteria for a "highly vulnerable" species. It is also a species with a "high public profile" (sensu Running and Mills 2009), making it a good candidate for vulnerability assessment. Our analysis is not intended to yield prescriptions for giant sequoia management in the future, but rather to illustrate how readily available spatial data could be used to enhance adaptive capacity of this and other "key vulnerabilities."

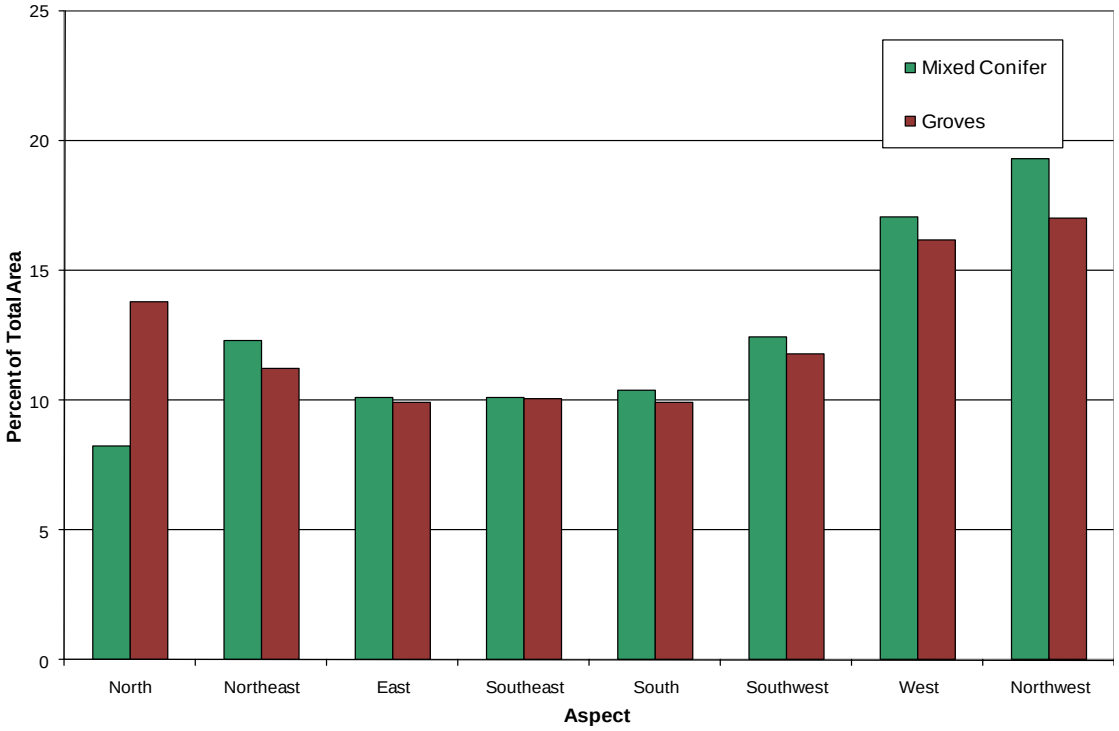
We compared aspects of the range of giant sequoia to the range of Sierran mixed conifer, the forest type that includes 84 percent of sequoia groves, which we use as a proxy for the "climate envelope" that could support giant sequoia under the current climate. Within this envelope, we examined the "variation in microtopography" (sensu Urban et al. 2000) that may further explain giant sequoia's distribution locally. Using the 30-meter National Elevation Dataset from USGS (www.seamless.usgs.gov), we generated topographic features (slope and aspect) within the Spatial Analyst extension of ARCGIS version 9.3.1 and used a tool developed by the Nature Conservancy to assign pixels to nine landform categories (valley flats; gently sloping toe slopes, bottoms and swales; gently sloping ridges, fans, and hills; nearly level terraces and plateaus; very moist steep slopes; moderately dry steep slopes; very dry steep slopes; cool aspect scarps, cliffs, canyons; hot aspect scarps,

cliffs, canyons). We found that, relative to the rest of the mixed conifer zone, giant sequoia tends to be found more on mesic, moderately steep slopes and less on relatively flat ridges and bottoms (Chart 1a). Similarly, giant sequoia tends to be found more frequently than expected on cool, north-facing slopes than dry, south- or west-facing slopes (Chart 1b).

These data suggest that under a warmer future climate, managers may look uphill toward moderately steep north-facing slopes to find locations where giant sequoia is most likely to grow (Fig. 1). While these results suggest a pattern, they are far from precise and would likely be improved by inclusion of data, such as soil depth and subsurface geology, that were not available to us. Still, these methods demonstrate how managers may use readily available data to begin to understand likely shifts in species ranges with climate change and devise strategies to enhance adaptive capacity through management, such as identifying where, in the event of future severe fire, giant sequoia may be introduced as part of the species mix despite its current absence.

Chart 1. Distribution of giant sequoia and mixed conifer forest with respect to landform and aspect.





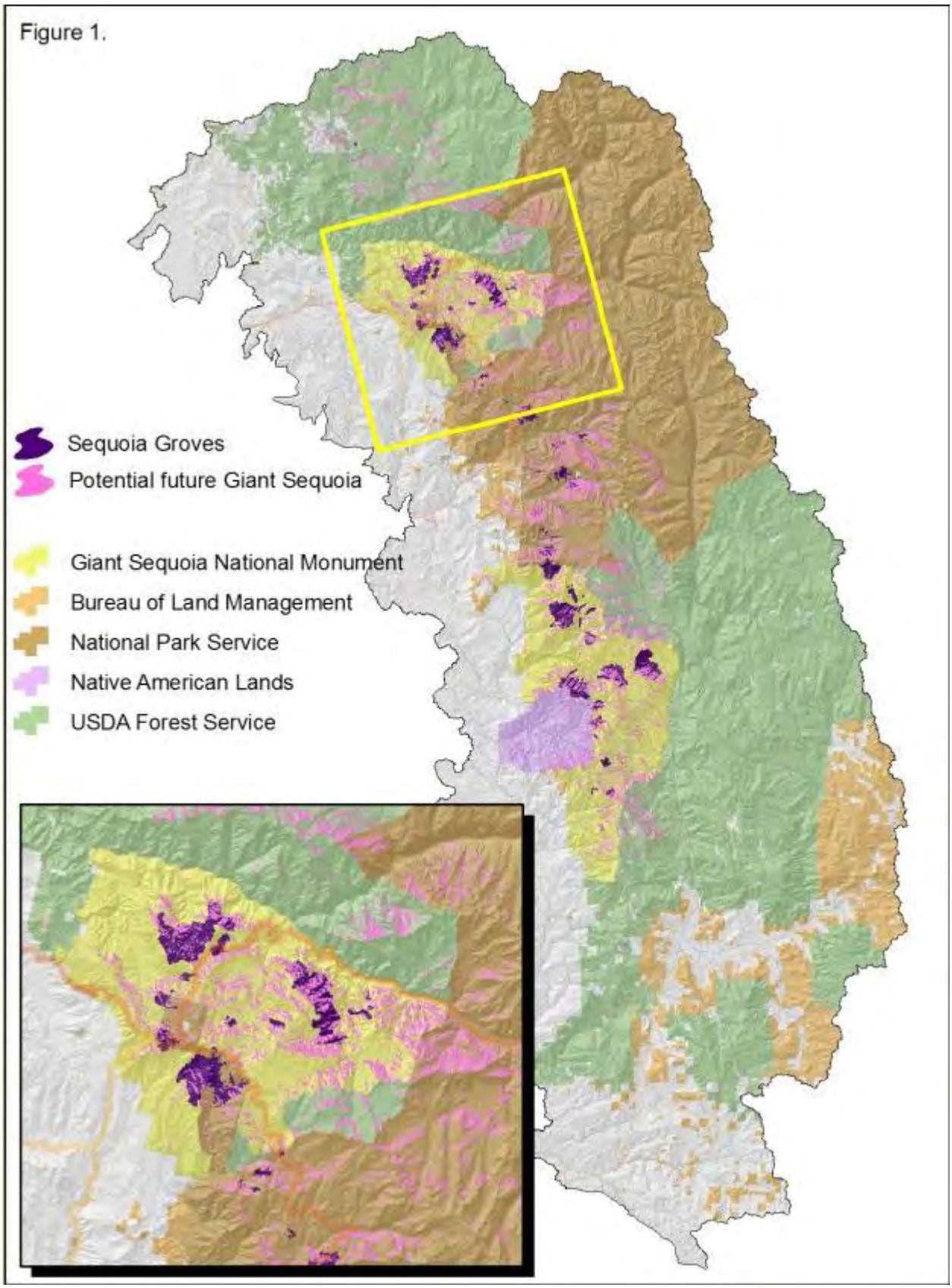


Figure 1.
Sequoia Groves
Potential future Giant Sequoia
Giant Sequoia National Monument
Bureau of Land Management
National Park Service
Native American Lands
USDA Forest Service

Analysis to support reduced exposure to the negative effects of wildfire in Sierra Nevada national forests: Designing a fire-resilient landscape

Our approach begins with the simple notion that in any landscape, there are places, usually close to communities, where we want to exclude fire and treat fuels to minimize damage. We call this the Community Fire Planning Zone (CFPZ). Elsewhere, there are places that are far enough away from communities that fire does not directly threaten safety, and natural fires can be managed for their benefits. We call this zone the Fire Use Emphasis Zone (FUEZ). In between, community concerns will likely result in suppression of unplanned fire, but controlled burns can be used under prescribed conditions to improve the resilience of vegetation to fires that escape initial attack. We call this the Wildfire Resilience Zone (WRZ). In our analysis, we map the Community Fire Planning Zone as the area within a half-mile of communities and the Wildfire Resilience Zone as the area extending out from there another five miles, a reasonable distance to address community safety concerns. In practice, the width of the WRZ will be determined as part of the planning process and may be narrowed considerably where communities are comfortable with natural fire.

Developing a LRMP that reduces exposure to the negative effects of fire is greatly aided by the creation of a three-zone map representing the CFPZ, the WRZ, and the FUEZ. Creating such a map is a relatively simple matter that relies on a very few readily available spatial data sets:

1. The most recent U.S. Census data at the block level, representing the number of houses in each block.
2. High-resolution land ownership data.
3. Federal land administrative data showing the locations of wilderness, roadless areas, research natural areas, campgrounds, etc.
4. High-resolution vegetation cover data, representing non-wildland cover types and wildland vegetation types.

To develop a map of the CFPZ, we recommend identifying communities denser than one house per forty acres (the minimum density of a wildland-urban interface community, according to the January 4, 2001 Federal Register notice[2]) based on housing density calculated from modified census 2000 blocks. Census blocks can be modified by subtracting public land and recalculating housing density based on the area of non-public land. Next, communities can be buffered by a half-mile to approximate the CFPZ. The portion occurring on federal land should be identified in the plan for treatment according to plans developed collaboratively between communities and the federal agencies. Because this mapping method utilizes large national and statewide datasets, errors are bound to occur at local scales of application. One such error is the identification of unoccupied private parcels as communities when those private parcels are within a census block that meets the density threshold for selection as a "community." Because of the potential for errors, we highly recommend that the CFPZ be generated through a combination of GIS techniques and local expertise.

[2] "Urban wildland interface communities within the vicinity of Federal lands that are at high risk from wildfire" (*Federal Register 66*(3): 751-777, January 4, 2001).

As mentioned, the WRZ generally need not extend beyond about five miles from the CFPZ. While there will be cases where restoration is desirable beyond this distance, the majority of restoration opportunities will be found at lower elevations, in dry forests near communities. By restricting the width of the WRZ, restoration planning can be focused on the "frontcountry," where the need is clear and where there is less controversy over the use of thinning. With time, restoration efforts may be extended beyond the WRZ but these cases are a lower priority for the foreseeable future (i.e., the life of the plan).

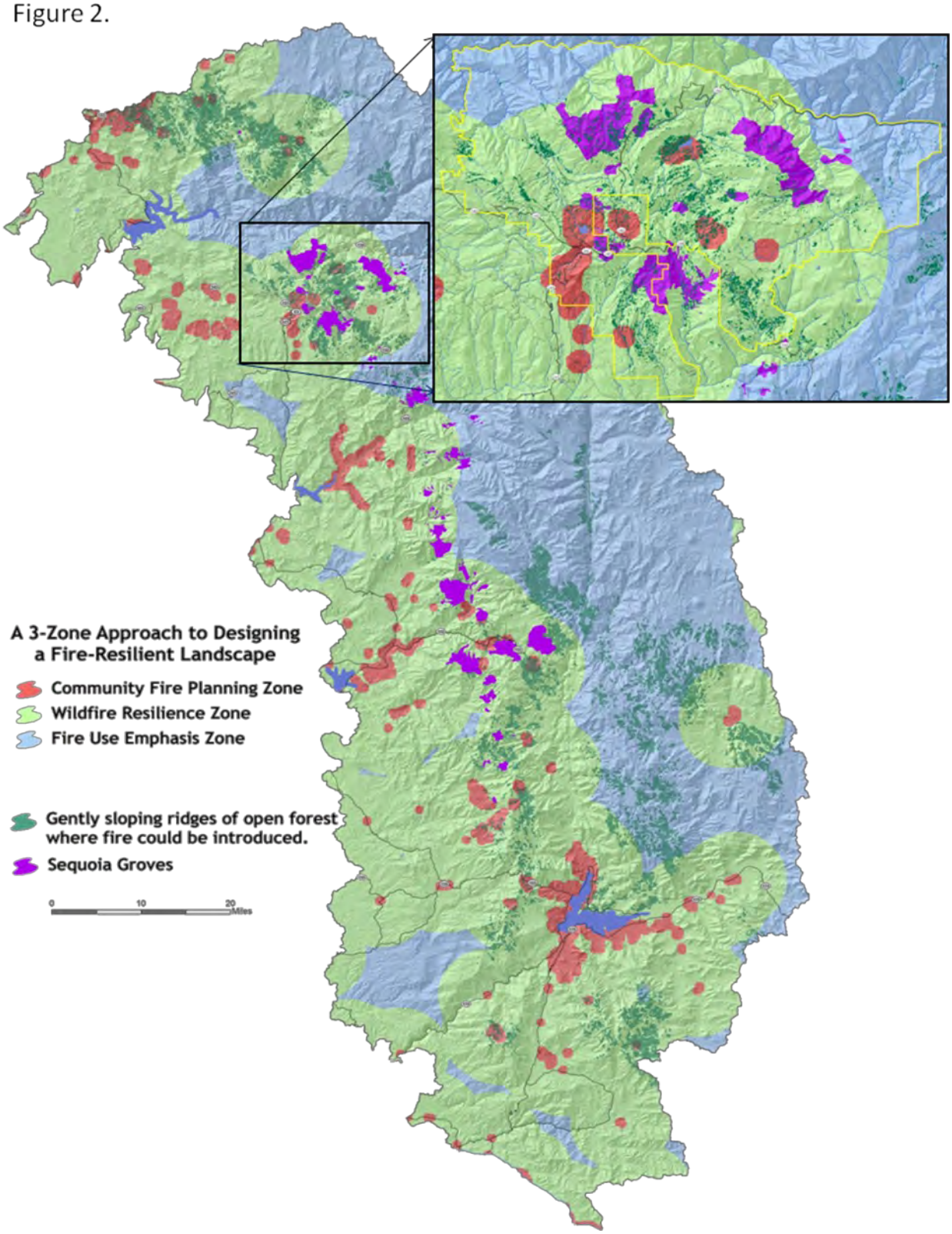
Within the WRZ, a fair amount of the area can be expected to be wilderness and inventoried roadless area. While restoration treatment in wilderness is not prohibited by the Wilderness Act, the need for any proposed manipulation of wilderness carries a high burden of proof, which must be detailed in a Minimum Requirements Analysis. Such a burden of proof should, with rare exception, make wilderness a low-priority candidate for treatment. Similarly, the Roadless Area Conservation Rule[3] and the "Bosworth letter"[4] place a high standard on entry of roadless areas. Both the Scientific Findings of the Interior Columbia Basin Ecosystem Management Project[5] and the EIS for the Roadless Rule[6] note that roadless areas are among the least ecologically altered parts of the landscape. Thus, roadless areas should also be lower priority candidates for restoration.

Although Wildland Fire Use was historically confined largely to wilderness, there is no reason why fire cannot be used outside wilderness, and recent changes in the implementing guidance for federal wildland fire policy encourage such use where appropriate. Thus, the FUEZ may be mapped as everywhere beyond the WRZ. Within this area, wilderness, roadless areas, and remote roaded land provide excellent opportunities to plan for fire use. The extent of the FUEZ will vary locally, depending on the degree of development. In some places, it may be virtually non-existent, while in others, it may dominate.

Our analysis of the southern Sierra ecoregion shows that the Community Fire Planning Zone occupies a tiny fraction of the landscape, but the Wildfire Resilience Zone is substantial (Fig. 2). This zone, which includes almost all sequoia groves, is where fuel treatment activities to restore natural fire regimes should be focused. Here, restoration treatments are likely to be most efficiently implemented where light to moderate fuels can be treated using prescribed fire alone. To aid in the location of these sites, we have superimposed on our three-zone map the location of gently sloping ridges supporting dry, ponderosa pine and mixed-conifer forests (Fig. 4). Such an analysis can be used to guide the location of fuel treatment projects intended to break up fuel continuity at the landscape scale and reduce the likelihood of unwanted fire moving into communities and sequoia groves.

[3] http://roadless.fs.fed.us/documents/rule/rule_fedreg.html
[4] http://roadless.fs.fed.us/documents/1230_Roadless_Ltr.htm
[5] http://www.fs.fed.us/pnw/publications/icbemp.shtml
[6] http://roadless.fs.fed.us/documents/feis/

Figure 2.


A 3-Zone Approach to Designing a Fire-Resilient Landscape
Community Fire Planning Zone
Wildfire Resilience Zone
Fire Use Emphasis Zone
Gently sloping ridges of open forest where fire could be introduced.
Sequoia Groves
0
10
20
Miles

Analysis to support improvements in land configuration to enhance adaptation. The Southern Sierra landscape contains an unusually diverse portfolio of protected areas. We began our analysis with the assumption that the ideal "experimental design" to test climate change adaptation strategies includes the full range of protected area classes well distributed and well connected across the environmental gradients of the study area. Anticipating that the relevant gradients under climate change would be elevation and latitude (to accommodate climate-driven movement), we evaluated the elevational and latitudinal distribution of protected area classes as well as the size and connectivity of the most continuous patch within each category.

To represent the distribution of various levels of protected area categories across the Southern Sierra landscape, we relied on the Protected Areas Database (PAD – version 4) (DellaSala et al. 2001) and its assignment of IUCN protected area categories (Figure 3). We performed an overlay analysis of each IUCN category with 30 meter resolution National Elevation Data (NED, USGS.gov), and latitude classes were generated at 90 meter resolution in Spatial Analyst, ARC/INFO. In order to identify the single connected patch that spans the greatest range in elevation, we relied on a sequence of GIS commands that began by reclassifying each raster representing an IUCN protected level so that every pixel representing the same IUCN level has the same value. We then performed a regiongroup command so that a unique value is assigned to each contiguous patch of cells. Next, using the focalstatistics command, we assigned the range statistic to each connected patch and selected the patch with the greatest range from the result.

Our analysis indicates that the southern Sierra landscape is currently dominated by two land classes, wilderness and unprotected lands, with the majority of the remainder in general national forest and BLM lands. There are no Category V Protected Landscapes and nearly no Category Ia or IV. Non-wilderness national park represents four percent of the landscape, and the Giant Sequoia National Monument represents ten percent. Protected areas are generally well distributed with respect to latitude, but low elevations are dominated by unprotected lands, and wilderness is concentrated at high elevations (Fig. 6).

Looking at the protected area patches containing the longest environmental gradients, it is clear that Categories Ib, II, III, and VI contain single patches that capture the vast majority of the regional variability in elevation, but no category contains a patch that captures the bulk of the variability in latitude. Significantly, with the exception of wilderness, the patch containing the greatest variation in elevation was not the patch with the greatest variation in latitude (Figs. 4 and 5) .

The southern Sierra ecoregion offers a significant opportunity to manage multiple protected area classes in an integrated, experimental approach to climate change adaptation, but adjustments are possible to improve the "design" of the "experiment". As management areas are designated through land and resource management plans, it may be possible to improve the representation and connectivity within protected area categories and to integrate plans across agency and ownership boundaries into a comprehensive, landscape-scale approach.

Figure 3.

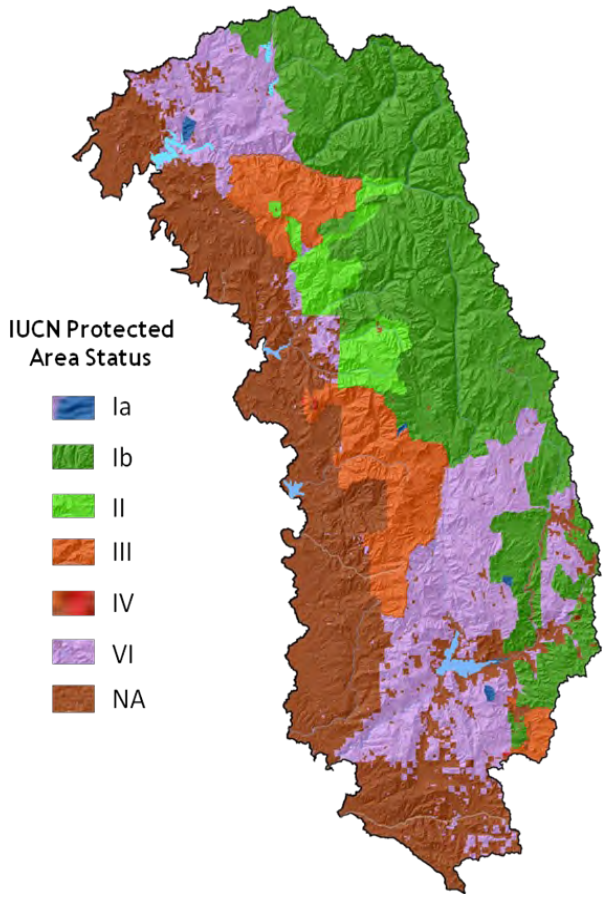


Figure 4.

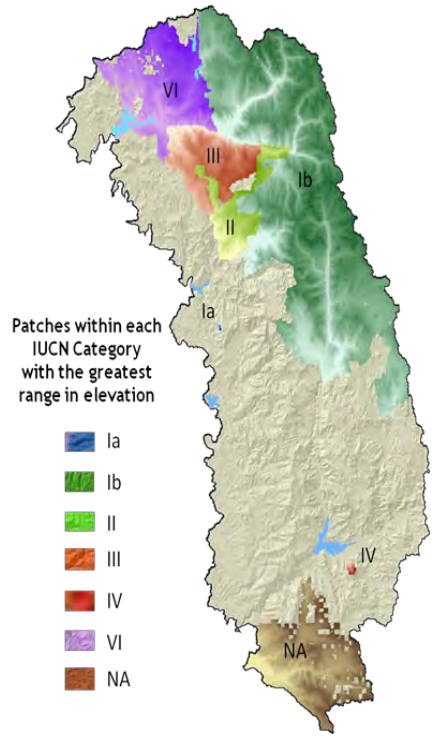


Figure 5.

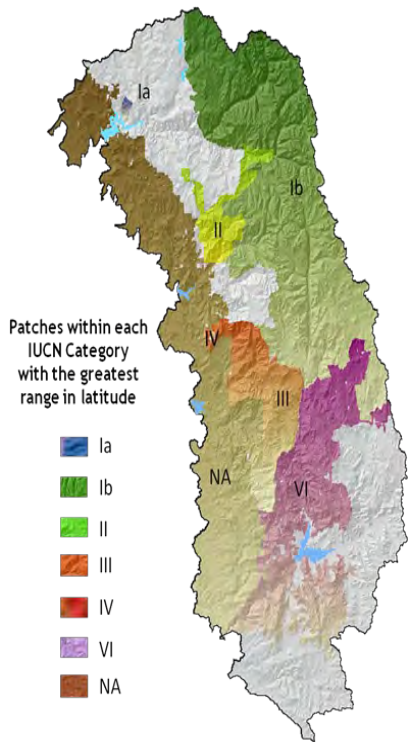
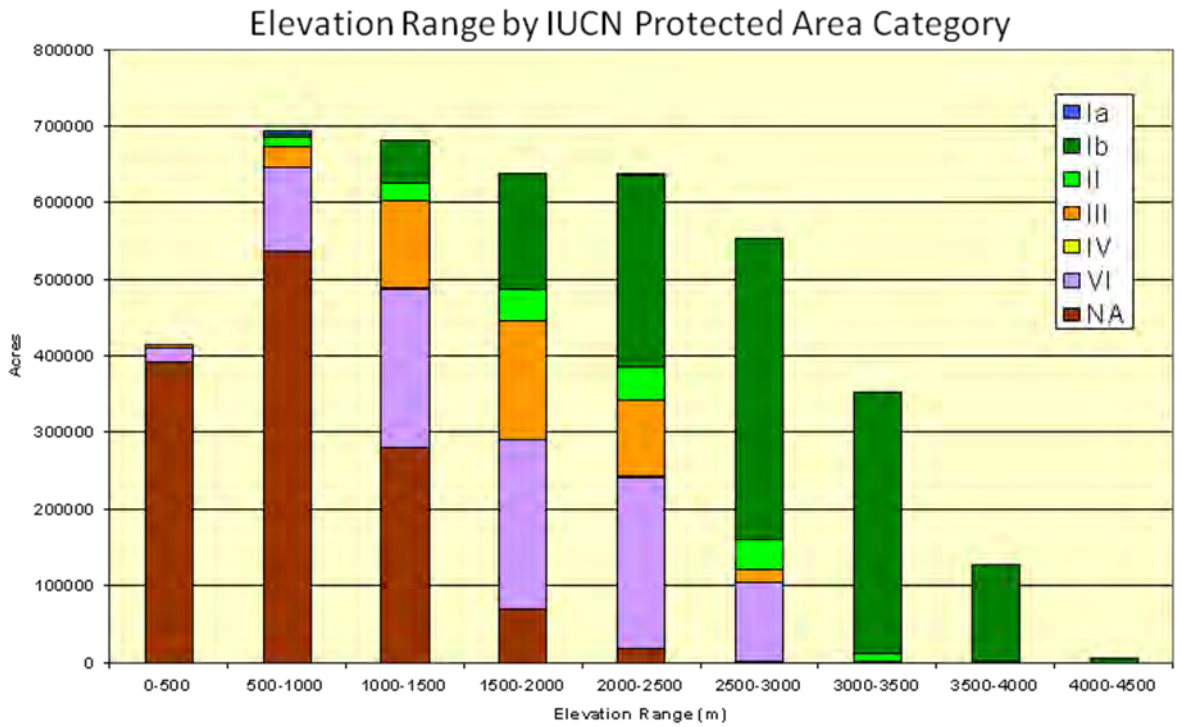
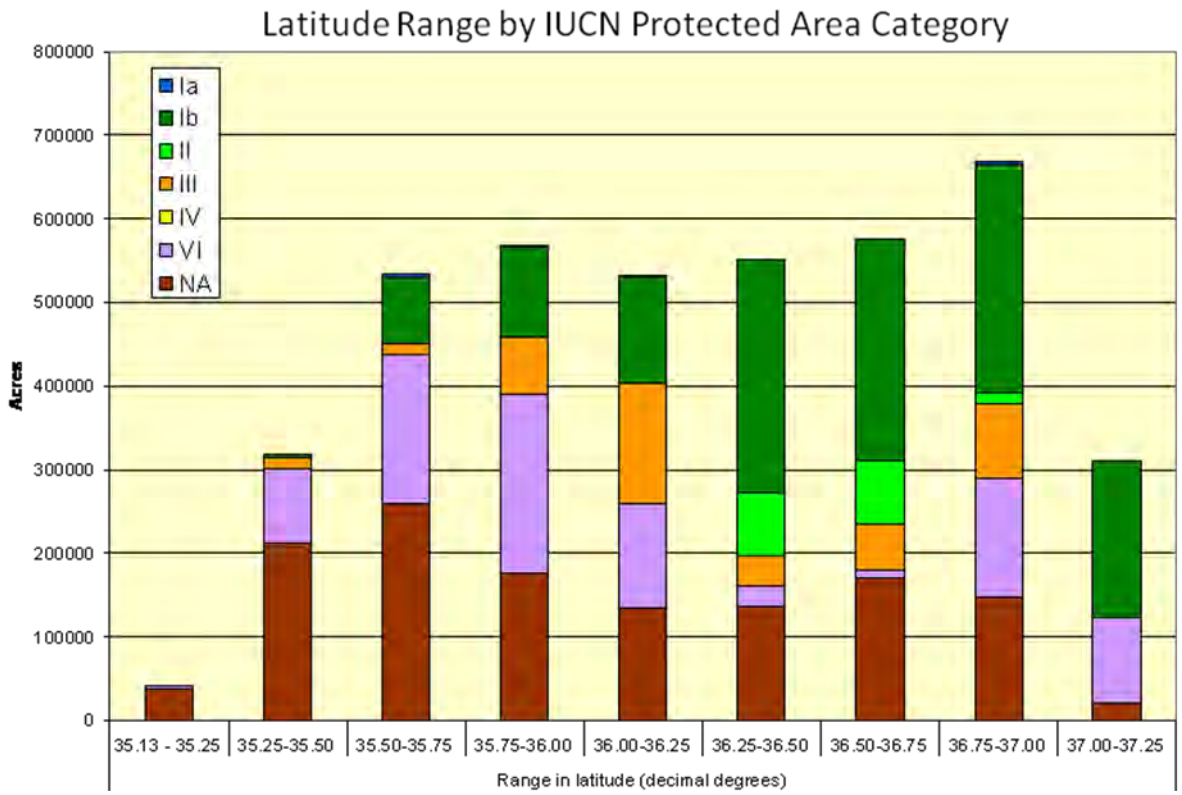


Figure 6.


Elevation Range by IUCN Protected Area Category
Acres
800000
700000
600000
500000
400000
300000
200000
100000
0
0-500
500-1000
1000-1500
1500-2000
2000-2500
2500-3000
3000-3500
3500-4000
4000-4500
Elevation Range (m)
Ia
Ib
II
III
IV
VI
NA


Latitude Range by IUCN Protected Area Category
Acres
800000
700000
600000
500000
400000
300000
200000
100000
0
35.13 - 35.25
35.25-35.50
35.50-35.75
35.75-36.00
36.00-36.25
36.25-36.50
36.50-36.75
36.75-37.00
37.00-37.25
Range in latitude (decimal degrees)
Ia
Ib
II
III
IV
VI
NA

Appendix References

DellaSala, D.A., N.L. Staus, J.R. Strittholt, A. Hackman and A. Iacobelli. 2001. An updated protected areas database for the United States and Canada. Natural Areas Journal 21: 124-135.

Running, S.W. and L.S. Mills. 2009. Terrestrial Ecosystem Adaptation. Resources for the Future, Washington, DC.

Urban, D.L., C. Miller, N.L. Stephenson and P.N. Halpin. 2000. Forest pattern in Sierran landscapes: the physical template. Landscape Ecology 15:603-620.

San Juan Archipelago

Public-at-Large

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State [redacted] Zip: [redacted]

Email Address [redacted] anization: _____

Do you want your personal information withheld? ☐ YES ☐ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☑ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Odlin Park South is important to get into BLM management from DNR! Consolidated contiguous properties makes the most sense for efficient management of public lands.

Address impact +/-'s of NCA or Nat. Monument designation.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: [redacted] Organization: _____

Do you want your personal information withheld? ☐ YES ☑ NO

Preferred method of contact: ☑ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☑ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

1. Nick Teague is a gem
2. Extending ACEC's to cover the 1000+ acres would be wonderful.
3. Specific problems on Lopez
   BLM needs to resolve parking problems for Iceberg and Chadwick Hill
   Iceberg in particular gets very heavy use - 25 cars at Agate beach and up the road is not unusual.
4. Additional staffing in the county and funding for restoration are needed.

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

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First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address: [redacted] Organization: _____

Do you want your personal information withheld? ☒ YES ☐ NO

Preferred method of contact: ☐ Email ☒ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☐ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

Due to our frequent enjoyment of iceberg point Cowiche & Watmough (We noticed a dire need for dog (poop) control.

Dogs are often unleashed leading people with small children to watch protectively. Owners are not always ~~conscientious~~ / responsible to attend to their animals. conscientious (!)

It is not right in these pristine properties so near open water to allow loose pets.
I suggest better signs - doggie poop bags or no pets at all!

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State [redacted] Zip: [redacted]

Email Address [redacted] rganization: Lopez resident + BLM volunteer monitor

Do you want your personal information withheld? ☐ YES ☒ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☒ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

We moved to the San Juans (Lopez specifically) because of the incredibley beautiful public lands that are available for hiking. We take all visitors to the BLM lands and they are impressed that BLM has these conservation areas. My concern is having these BLM lands be preserved for conservation of flora and fauna and for hiking. These BLM lands are a rare treasure that need to be preserved in perpetuity. Please consider designating these lands as a National Conservation Area so their value can be preserved for future generations.

On another issue, keeping cattle out of streams is an effective way to preserve the ecosystem services flowing water can provide. It is also an effective way to restore

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

(over)

damaged streams, I will look to the management plan to identify stream miles that flow through BLM lands and how those streams (and not just salmon-bearing) will be protected from cattle damage.

06/06/2010 08:07 PM

To "OR_Spokane_RMP@BLM.gov" <OR_Spokane_RMP@BLM.gov>
cc
bcc
Subject BLM land on Lopez Island, Washington

Hi,
I'm very sorry I could not make the BLM meeting June 5th at Friday Harbor, WA. Conserving, maintaining these wonderful areas should be a top priority.

I live approximately a half of a mile from Iceberg Pt on Lopez Island, WA. Our property has been in my husband's family for approximately 55 years.

Almost daily I go out to Iceberg Pt for a walk. I cannot emphasize enough what a treasure the BLM land in the San Juans are to the environment and people.

When I walk out there between March and October, I see anywhere from one or two people to fifty or more enjoying the Point. On Sunday, May 30th, 2010, I counted 12 cars at Agate Beach and 12 cars slightly south of Agate Beach. Most of the these people were headed out to Iceberg Point. From our house, we can see people heading out to the Point. It was a constant stream on Sunday. School and college kids, visitors, residents all use and enjoy this area.

I love seeing the change of seasons, the varieties of plant and animal life. Wildflowers abound out there from early spring to mid summer. The BLM property needs to conserved and protected for future generations.

Please preserve our Bureau of Land Management land.

Sincerely,
[redacted]

06/10/2010 10:47 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

ddress:

Comments:
Some of the BLM shoreline sites in the San Juan Islands have been useful in research by biologists at the University of Washington\'s Friday Harbor Laboratories (FHL). All of the sites are potentially important for field studies. Although the uses are infrequent, they can be of key importance. Biologists often seek relatively undisturbed intertidal sites with particular characteristics, and some of those sites are best represented on BLM lands. Also, some of the scientists that FHL serves are visitors who must decide on sites and execute studies within a period of a few weeks. Whatever the BLM lands in the San Juan Islands become, the public will be best served if procedures for permission for research have rapid turn around. Delays prevent gain of knowledge of these sites in particular and biological knowledge in general because delays often cause opportunities are missed entirely.

An internal check at FHL on permission for scientists to collect marine specimens in the San Juan Islands is the requirement for permission by the Director of FHL or the Director\'s representative at FHL. This authority for permission is by a state law.

My comment on research needs is based on my experience at FHL as Resident Associate Director from 1973 to 2008.

I am still doing research as a visiting scientist at FHL. Thanks for your attention.

[redacted]

Preferred method of contact is email.

06/11/2010 01:16 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
Please add me to your mailing list. I support an NCA plan for the San Juan Islands. I have been a long time advocate for preserving and conserving public lands in the San Juans. I have been a BLM monitor on Lopez Island since 1993 and a member of the Friends of Chadwick, a grassroots group to acquire and preserve over 400 acres of habitat on the S.E. of Lopez Island.

Preferred method of contact is email.
Preferred RMP/EIS format is a paper copy.

06/11/2010 02:35 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
I am actively involved in the Indian Island project on Orcas Island. Thus I am especially interested in the plans for conservation designation of that, and similar areas in the San Juans.

Preferred method of contact is email.
Preferred RMP/EIS format is CD.

ATTN: Scott P.
4 pgs. Nick Teague 360. 468.3754

TO: FOUR RIVERS – RMP PROJECT (SAN JUAN ISLANDS)
FAX NO. 208 – 384 – 3493
JUNE 14, 2010

First – thank you for the public presentation at the Friday Harbor, San Juan Island, Mullis Center regarding the plans you are drawing up for the San Juan Islands. The materials distributed were, likewise, a great help. I have been to your local Lopez Island "jewels" and worked with Nick Teague on an eye-opening Turnpoint Lighthouse (Stuart Island) work party. And, here on Orcas Island's Indian Island work project we are all learning to work in BLM "territory". My next small effort for Nick will be to checkout, using your forms, BLM's tiny point within the Point Doughty Marine Park on Orcas. The nearest I can tell, the Coast Guard transferred what had been a "Lighthouse reserve" to BLM many years ago.

You have asked for input as to future management of your San Juan Islands territories. I know that you have some 3 ACEC's on Lopez Island, and Turnpoint on Stuart Island so designated.

My suggestion is simple. There are currently no BLM lands on the San Juans with restrictions anywhere near as important as the ACEC designations you have already awarded. Your efforts on non-designated location, such as Indian Island, have been to combine public education with protection of what is naturally there, and you, de facto, cooperate with KWIAHT and other environmental groups to accomplish ACEC goals.

Jun 23 10 11:10a p.1

2.

In my view, the San Juan Islands should be treated as a unitary ACEC, with such sub-plans and restrictions as are necessary. That is the view the San Juans have taken of themselves. For example: the San Juans fought, in the Washington Supreme Court, and won, some years ago, a battle to prohibit jet boats on all of the San Juan Islands. More recently, the San Juan County Council designated the entire San Juan Islands a Marine Stewardship area. While you may already be aware of this, I am, nevertheless, enclosing pertinent substantiating literature.

I would believe ACEC designation for all of the San Juans would focus us all on the key usage for BLM ownerships, and considerably simplify your administrative policy. Once again, these ownerships are something special, and they all are worthy of your best protection.

Very truly yours,

[redacted]

Enclosures

PS I was unsuccessful e-mailing to FourRiversRMP@blm.gov

06/14/2010 09:42 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

treet Address:

Comments:
Please protect the SanJuan County properties to the full extent , they are unique, precious and in need of our care. Noxious weeds are of special concern- skull island is an example of spurge laurel invasion. cultural resources also merit our attention.

Thank you,

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/16/2010 03:03 PM

To <OR_Spokane_RMP@BLM.gov>
cc
bcc
Subject National Conservation Area for BLM headlands in the San Juan Islands

I was unable to attend the June 5th meeting in Friday Harbor concerning the BLM lands in the San Juan Islands. I want to voice my approval of the efforts to obtain National Conservation Area status for the BLM lands in San Juan's.

Thank you,

06/17/2010 04:39 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Str[redacted]ss:

Comments:
As 30 year residents of San Juan Island, we have enjoyed hiking trails on the island for many years with our children, friends and visitors. One of our favorite is along the cliff by the Cattle Point Lighthouse. However, erosion has taken a toll on this trail and it is in danger of being totally lost. We would like to see the BLM repair and restore the trail as well as the crumbing foundation of the lighthouse itself. Thank you,

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/18/2010 09:58 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Request[redacted]reet Address:

Comments:
I am a 40-year Orcas Island resident and a 2009 WSU Beach Watcher graduate involved with many of our BLM lands here in the San Juans. Some comments for your consideration:

1. Oppose closing these lands to public access.

2. Encourage development of public education and information via trail development and signage.

3. Close specific areas during nesting periods to alleviate human stress loads on particular birds like our Oystercatcher.

4. Seek permission to erradicate Canada Goose eggs (an invasive species) during their major nesting perod.

Thank you,

[redacted]

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/18/2010 02:22 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor St[redacted] Address:

[redacted]

Comments:
Last year, I went with a group to Victim Island in West Sound, Orcas Island to work on an infestation of Spurge Laurel. Victim Island is a small island which was covered with the noxious weed. I hope BLM will address problems of invasive species such as this in its review of its holdings in San Juan County.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/20/2010 01:47 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Stree[redacted]

Comments:
1. Consider Chadwick Wetlands of Lopez Island a waterfowl sanctuary and discontinue hunting in the marsh. The birds a very shy of observers.

2. Iceberg Point of Lopez Island. - Please maintain and manage the access to Iceberg Point as it is a private property access. Please focus on eliminating non-native and/or noxious plants and reintroducing the native vegetation to Iceberg.

3. Please restore the Turn Point Light Station Keepers Quarters located on Stuart Island. Stop the current deterioration of this wood structure and upgrade the interior to living standards. Develop a lighthouse keepers program. This act in turn could help financially maintain all the historic structures of Turn Point. This site must be saved as it is a rare historic site.

4. Please develop a water catchment system for use in maintenance and eventually consumption at Turn Point Light Station, Stuart Island.

5. San Juan County BLM Representative to be provided with an all weather vessel to effectively manage lands and provide an appropriate response time when urgent or unexpected issues arise.

6. Please create more contracts within San Juan County for civilian contractors to pursue. This act will enrich BLM productivity and provide commerce to our economy.

Thank you for asking.

Preferred method of contact is email.
Preferred RMP/EIS format is a paper copy.

06/21/2010 12:38 PM

Please respond to

To <OR_Spokane_RMP@blm.gov>

cc <Gregario_Teague@blm.gov>,

bcc

Subject Comments: BLM Areas, Lopez Island

To BLM staff,

RE: Lopez Island BLM Properties – Comment Request

Watmough Bay, Point Colville, Chadwick Hill (& Wetlands) and Iceberg Point are treasures to many Lopez residents, including myself.
I am a retired senior and I walk on at least one of these properties almost daily and have for years. It is truly a life highlight and I never tire of absorbing the natural beauty.
I love to see the change of seasons, the wildlife, birds and wildflowers in season.

There are so few great places like this that allow public access they are most appreciated. The level of recreation currently allowed seems just about right, limited to nature walks and excludes bikes, camping, motor vehicles, etc. It is true that each year each place becomes more popular each year. Even so, they are far from crowded and, with few exceptions, visitors seem very respectful of the properties (very seldom do I need to pick up minor litter and even more rarely see an illegal activity (such as a camper). Nick and his volunteers do an excellent job of stewardship.

My advice and hope is that BLM will keep doing exactly what it has been doing regarding protection and management of these properties (a small suggestion is adding a a “stay on established trails - no shortcuts” sign at your entrances). Also, given the popularity, number of walkersand nature of the surroundings, I’m not sure hunting is a good idea.

[redacted]

06/22/2010 10:20 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor S eet Address:

Comments:
I am writing to encourage the BLM to consider categorizing the Indian Island property on Orcas Island as an Area of Critical Environmental Concern.

This very small island is located directly off of the village of Eastsound and is accessible to walk to every time there is a low tide. During the summer months it is not uncommon to have 200-300 visitors per day out to the island during the low tides.

The terrestrial portion of Indian Island has one of the most diverse and beautiful wild flower gardens I have seen in the San Juans. It has an historical Camas garden that was farmed by Native Americans.

During June, there is a pair of Black Oyster Catchers, a species of high conservation, that have been trying for years to nest. Due to the Canada Geese and the people on the island it is very difficult for these beautiful birds. This year they did lay 3 eggs and the WSU Beach Watchers and Kwiaht employees and volunteers have been trying to keep visitors away from the nest as best they can. I am recommending that the terrestrial portion of the island be closed to visitors during nesting season. Approx. mid May to mid July.

I would also like to recommend paths on top of the island and signs indicating the importance of staying on the paths. ie: delicate flowers and birds. Currently the \'paths\' are ignored and the top of the island is quite trampled upon.

There is a vast array of delicate marine invertebrates in the intertidal zone as well as the recent discovery of a squid nursery in the shallow waters around Indian Island.

There are a number of volunteers that have taken on a project called the Indian Island Marine Health Observatory. We monitor the intertidal species, the eelgrass, the clams, the water quality as

well as the fish that use the waters around Indian Island.

We are all concerned for the health of the animals and plants that seem to be thriving, but are in need of being protected.

Thanks for your time and consideration.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/22/2010 11:13 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Comments:
I support and urge you to implement a plan whereby a National Conservation Area under BLM purview is created to continue to protect the 900 m/l acreas BLM currently administers in the San Juan Islands.

Thank you

06/23/2010 11:50 AM

To OR_Spokane_RMP@blm.gov
cc
bcc
Subject REsource Mangt PLan-comment

Comment of BLM lands in San Juan Islands

The BLM acerage in the San Juans is like a jewel to be given to our children and children's children as well as to be enjoyed by ourselves and those who come here for solace from their busy lives . As an island community we are very conscious about our limited boundaries. There is no place to expand when we get too crowded with growth. So we want these BLM lands to be our places of refuge-- where nature still rules and habitat have a place to feel safe and prosper. This why it is so important to have long term protection for all of BLM lands here. We can not be at the whim of what ever government administration might be in power at the moment. The land is too precious to be dickered over when each new Resource Management Plan comes to pass.

It is for this reason that the National Conservation Area is a perfect solution for the BLM holdings in the San Juans. It does give long term protection and gives these lands high priority in the BLM allocation of funds for habitat restoration, for management, and would provide a clear over- all consistent plan for all BLM holdings here. It is essential that places like Patos and Turn Point be protected and maintained as historic landmarks for their lighthouses-- and the beauty of the island life. It is essential that the small islands and the rocks and reefs be protected from potential future development. There is and will increasingly be a big push of energy "use" of BLM lands. It is important that these BLM eco-systems of our waters are not developed or sold for tidal/current power stations. We as Islanders need to know that we can at least have some places that are not up for grabs by those who want to extract resources and develop man-made "improvements.

These Islands are known for their beauty, for their inherent nature. Tourism is a huge pressure that is increasing. I own a tourist lodging-- and know from long experience that people come here, often from across the country, to be in NATURE. It revives their soul, connects them to what is important. The BLM lands here on Lopez that provide recreational use are a huge balm to their soul. They leave refreshed and feel more connected to life. With a National Conservation Area all these people could be assured that these lands will be continued to be used in ways that promotes conservation and habitat for wildlife.

It has been said that the BLM at the present has to coordinate with over 60 agencies and groups to manage their lands. What a nightmare that must be. And I can imagine that it takes a lot of time of staff to come to agreement of what is done. A management plan that covers all the BLM lands in the San Juans

seems absolutely essential to have a cohesive way of partnering with non-profits, with other agencies. It is important to know that these Islands have a unique culture, a unique population and, of course, unique eco-system and land definition. THe BLM plan needs to recognize this and not lump it together as "just another BLM holding". There needs to be a plan that is specific to the San Juans and acknowledges the attributes that are inherent here.

It is with great appreciation that you are asking the public what it wants. And in this regard I am a proponent for the National Conservation Area which not only emphasizes conservation but is also a grass-roots process that brings together local people to create what is most desired. As you know the National Monument idea has been bantered about, but the National Monument is a top-down process and may not take local people into consideration. It also could be such a magnet for tourism that our small islands could easily be overcome and out of control of the result. We simply to not have the infrastructue to support a huge increase in tourism.

Thank you for the opportunity to share my thoughts.

[redacted]

[redacted]

06/23/2010 11:18 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

[redacted]

Comments:
I\'m writing regarding the San Juan County BLM lands. I\'ve lived here 21 years and have seen a precipitous decline in almost all charismatic wild species except eagles and otters (grebes, oldsquaw, puffins, newts, minkes, orcas, salmon, halibut, even gulls). I urge you to manage your lands in whatever way is needed to maximize undisturbed habitat for local species. They need all the help they can get.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/23/2010 11:01 AM

To OR_Spokane_RMP@blm.gov
cc
bcc
Subject BLM lands

Dear Representatives,

I am writing to express my viewpoint and concerns regarding the reserves and parcels of land currently in the jurisdiction of the Federal Bureau of Land Management. While Iceberg Point, Point Colville, Watmough, the lighthouse and other places, as well as a number of small islands, are protected by a 15-year plan, I am among those who would like to see a more permanent means of protection established for them.
Members of my family, along with many other people I know, value these places highly as a resource for recreation, beauty and spiritual balance. In addition, numerous local species of plants and animals thrive in the BLM lands where development is limited, thereby contributing to a healthy ecosystem. Finally, certain of these places in particular tend to attract tourists, who boost the San Juan economy.
I would love to help ensure these lands continue to be protected and well-maintained. If help is needed, perhaps word could be posted, and a rotating caste of volunteers could be called upon to make periodic rounds, especially locals who already frequent the area? Many hands make light work.
At any rate, thank you for the opportunity to comment, and I wish everyone the best of meetings and solutions.

[redacted]

06/23/2010 08:38 PM

To OR_Spokane_RMP@blm.gov
cc council@sanjuanco.com,
bcc
Subject NCA Designation for San Juan BLM Lands

I am writing to express my strong support for designating all BLM lands in the San Juans in Washington state a National Conservation Area(NCA). I believe these lands have significant conservation, cultural, natural and scientific value.

I have been a resident of Lopez Island since 1975 and during the past 35 years I have witnessed the continued growth and development of the islands and region. I strongly believe in the value of public lands for conservation, protection of wildlife habitat and for recreational use.

I have been a BLM volunteer monitor on Lopez Island since 1993. I have watched the increased use by the public of the BLM lands on Lopez, while conducting my monthly monitoring. The lands are used, respected and rarely abused. The public I have come in contact with, while monitoring appear to appreciate the areas and appreciate being able to visit them.

I was an active member of a small group called the Friends of Chadwick, which set a goal to create a contiguous habitat on Watmough Peninsula to link Chadwick Hill to Point Colville on Lopez by acquiring private lands when they became available through Federal grants from the Land and Water Conservation Fund. There are now over 400 acres of contiguous land that has become an invaluable resource on the island.

As an historic preservationist, I am currently a member of both the Turn Point Light house group and keepers of Patos Light. I would like to see the BLM work more closely with these two non-profit organizations, as well as other groups within the San Juans and region that might want to partner with you to preserve the historic structures and protect the natural resources that surround them.

I believe that even the small islands and the groups of rocks and reefs that the BLM owns throughout San Juan County should also be protected. They serve as valuable bird, animal and marine habitat.

Please designate all BLM lands in San Juan County as a National Conservation Area(NCA).

Thank you for the opportunity for the public to be heard in both written comments and your June 5th scoping meeting on San Juan Island.

Sincerely,

[redacted]

06/23/2010 02:53 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor treet Address:

Comments:
To whom it may concern: The BLM lands on Lopez Island, on Patos, Turn Point, and the rest of the San Juans, are extraordinary and need to be preserved in perpetuity. They are major wildlife habitat, major archeological sites, view vistas worthy of a National Park, and sites of recreational hiking. The National Conservation Area (NCA) would provide permanent long term designation of the land for conservation and for a recreational area. The bottom line is that these lands must be preserved, available to the public in ways that protect these lands in perpetuity. These lands are assets of this on that must not be neglected or ignored. Thank you.

Preferred method of contact is US Postal Mail.
Preferred RMP/EIS format is download from the BLM website.

06/23/2010 07:29 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

reet Address:

Comments:
I am a 30 year resident of San Juan County and live on Lopez Island. The BLM lands here and on the other islands are some of the most unbelievably beautiful and fragile landscapes in this area. They are home to countless species of wildlife and rare plants. Many of these areas were also considered sacred by the natives who lived here up until 150 years ago, and whose ancestors inhabited the islands for over 13,000 years. After witnessing the exponential growth in the islands in recent times, it\'s clear that without permenant preservation, these parcels of unpoiled land will be subdivided and turned into vacation homes. Please consider the possibility of incorporating a Nation Conservation Area designation into BLM managed properties. Washington State cannot afford to lose the last of our pristine lands. Thank you for your attention and efforts.

Preferred method of contact is email.

06/23/2010 12:04 PM

To OR_Spokane_RMP@blm.gov
cc
bcc
Subject Fwd: BLM lands in San Juan County

---------- Forwarded message ----------
From:
Date: Wed, Jun 23, 2010 at 9:49 AM
Subject: BLM lands in San Juan County
To: RMP@blm.gov
Cc: council@sanjuanco.com,

Dear BLM Folks,

I write to you as a concerned member of the Lopez Island (WA) community. Born on Lopez in 1972, I have had a lifelong relationship with the BLM lands that grace the southern end of our island, including Iceberg Point, Colville Point, Merk's Mountain (Chadwick Hill) and Watmough. I hear that you guys are reviewing your policies for these lands and would like to urge you to protect these lands in perpetuity to the fullest extent possible so that locals can continue to enjoy their natural beauty, preserved, forever.

Thank you for your attention to this matter.

[redacted]

--
Hidden in the heart of every creature
Exists the Self, subtler than the subtlest,
Greater than the greatest. They go beyond
All sorrow who extinguish their self-will
And behold the glory of the Self
Through the grace of the Lord of Love.
-from the Katha Upanishad

[redacted]

06/23/2010 12:36 PM

To <OR_Spokane_RMP@blm.gov>
cc <council@sanjuanco.com>,
bcc
Subject Management Plans for BLM lands in San Juan County

Thank you for soliciting input for your Resource Management Plan process covering the BLM-managed lands in San Juan County.

I'm a resident of Lopez Island and own property (148 acres) immediately adjacent to the Iceberg Point ACEC. We've been in that location for nearly 20 years. Our land is protected by conservation easements to help minimize development encroachment on Iceberg Point. My family also makes use of other BLM-managed lands in the county, with most of our use focused on Lopez Island.

My overall wishes for the planning process are for plenty of local involvement - something you have already started. These lands have been used for generations by the locals over the last 150 years and Native Americans for many centuries prior to that. Involving the local communities and appropriate tribes in your planning process will help ensure their support for your management plans as well as reinforcing their sense of stewardship for the lands, which should make BLM's job easier going forward.

My desired outcomes for the planning process vary by landscape type within the county, but generally center on preservation of the cultural and biological values embodied by the lands in the face of growing population and usage pressures. Each of these properties will probably require a more active management role in protecting the lands from overuse and abuse - an increasing issue with the growing pressures on these landscapes.

Specifically:

* For the Iceberg Point, Point Colville and Chadwick Hill areas on Lopez - protection from overuse and meadow loss
These larger areas on Lopez Island face similar challenges. Their key attraction to the public is in their habitat - such as the spring wildflowers they sport. However that habitat is very fragile and is threatened by overuse. During the years I've been on Lopez I've seen the unmaintained trails on these properties multiply and deepen. I've seen people pitch tents in the meadows and seen lichen ripped up by mountain bike tracks. These properties need specific active management if we are to allow continued public access. At Iceberg Point that needs to include finding a sustainable solution to upland access - which is now available only by trespassing over the land of a cooperative neighbor. In addition, there is a

strong risk that the increasingly rare shoreline meadows on both properties will disappear due to forest encroachment. Kept open for centuries by Native American cultivation, the hands-off and fire-free management of these properties is allowing the meadows to vanish. If we are truly to consider properties like Iceberg Point areas of "critical environmental concern" then we have to address that environmental concern by trying to protect the unique habitat characteristics of the properties, like the Iceberg Point meadows.

* For the lighthouse preserves at Turn Point and on Patos Island - public access and tourism

BLM appears to have partnered successfully with Washington State Parks for management of properties at Patos and on some small islands - I think this is a good approach if practical. My main goals for these properties and for the lighthouse preserves would be to enable public use and to protect cultural resources. There are local groups actively supporting both Patos and Turn Point lights, and a continued close collaboration with them seems very productive.

* For the various rocks and small islands that BLM manages - protect habitat

For the islands not being actively managed by Washington State Parks, my biggest concern centers around public confusion. Many of the unoccupied rocks in the archipelago are managed by the Fish and Wildlife Service and make up the San Juan Islands National Wildlife Refuge. Like the BLM rocks, these are often devoid of any signage. If the public becomes aware of recreational opportunities on the BLM rocks, such as kayak landing or camping, I fear that the NWR islands will receive inappropriate traffic because of the public's inability to distinguish the two. In my mind, the safest approach for these small and unmanaged rocks is to adopt a management regime that mirrors that of the National Wildlife Refuge. Such an approach would not only protect the habitat value of the BLM rocks, but help prevent abuse of the NWR rocks.

Thank you for beginning this process and committing to an explicit management plan for these lands. I look forward to participating in future stages of these discussions.

[redacted]

winmail.dat

06/23/2010 09:36 AM

To <OR_Spokane_RMP@blm.gov>
cc "Committee for National Conservation Area" <CNCA2010@live.com>, <council@sanjuanco.com>
bcc
Subject San Juan County BLM lands

June 23, 2010

Bureau of Land Management
Spokane District Office
1103 N. Fancher Rd.
Spokane Valley, WA 99212

Thank you for beginning the management planning process for the nearly 1000 acres of BLM properties in the San Juan Islands. As a resident and property owner for 36 years, I have had the opportunity to enjoy hiking or viewing many of these unique and pristine properties that include Iceberg Point, Point Colville, Chadwick Hill and Watmough on Lopez, Kellett Bluff on Henry, Cattle Point on San Juan, Turn Point and Patos Island Lighthouses, as well as 31 small islands like Victim and Indian, and about 40 groups of rocks and reefs spread throughout the county.

I support a National Conservation Area (NCA) designation for all of the BLM holdings in San Juan County. I understand that this is a congressional designation and that it is entirely outside the BLM management planning process and that BLM officials and staff don't participate in its consideration. However, I want to use this letter to explain why I believe a NCA designation is the most appropriate.

I write this letter as an individual, but I have been meeting with other people who care about the BLM lands for over one year. We are generally very pleased with BLM's current land management. However, the Lopez Island properties are the only ones that have a management designation (Area of Critical Environmental Concern) and it is an administrative one. As I understand it, that designation can be changed by a BLM administrator either at his or her discretion, or more likely by a political decision made by a BLM official in Washington, D.C. The other BLM holdings in the County have no management designation at all. I would hate to see any of the BLM properties sold to a private developer, which is a scenario that nearly happened with the DNR properties when the Lands Commissioner made a political decision to divest all DNR properties in San Juan County.

I believe that all of the BLM properties deserve a management designation that conserves these treasured lands for the long term. After investigating multiple designation options, I favor the NCA designation primarily because it is intended to be long term. However, it has other features that are important. The specifics of the management plan are developed locally, rather than in Washington, D.C. It supports partnering with local organizations to accomplish mutual

objectives and stretch dollars. The Land Bank and San Juan Preservation Trust have already worked well with BLM and it is a proven model. Finally and importantly, the NCA designation may be the best to ensure sufficient resources to properly manage these vital properties over time.

I'm writing this letter because I want the BLM to know how much I and so many other San Juan County citizens care about these properties. I am copying the letter to the San Juan County Council as as their support for a NCA designation is critically important.

Sincerely,

[redacted]

06/23/2010 02:36 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

eet Address:

Comments:
I would like to express my support for all BLM lands on the San Juan Islands (and Lopez Island in particular) be designated as NCA status.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

06/24/2010 09:07 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form - ----BLM Monitor 3 years

Requestor: 3 years
E-mail address:

Requestor Street Address:
BLM Monitor 3 years
[redacted]

Comments:
Hello,

At this time I live on Lopez Island Washington. I have been here for five years. The BLM land is so very important to me. Anything we can do to preserve it and make it a lasting part of our community would be such a wise decision at this time. Unfortunately, the future may not hold forth in the ability to keep our lands secure and part of our natural resource.

I am a BLM monitor. For the last 3 years, I can speak from first hand knowledge of how the land effects others. People, meaning our frequent visitors and locals, resonate with such passion and joy when they are visiting Watmaugh, Iceberg, Point Coleville. This sounds corny, but it enriches their souls and wakes a deep part of passions about nature. These BLM lands help people in ways I cannot verbalize. I have been part of lichen workshops at Coleville, Indian talks at Watmaugh, Iceberg flower walks and various work parties. I have seen the wonder when children are introduced to the trees and plants. Lopez is a unique place.

Please do all that can be done to help keep our land as part of our island\'s life.

Please feel free to contact me by phone if I can answer any question you may have.

Thanks.

06/24/2010 09:13 PM

To OR_Spokane_RMP@blm.gov, council@sanjuanco.com,

cc

bcc

Subject Management plan for San Juan Islands Washington

To whom it concerns,
I am writing about the future use of BlM Lands in the San Juan Islands. I have been a resident of Lopez island for 28 years and have greatly enjoyed a large percentage of the BlM lands in this county. I Would add my voice to those that are asking for a permanent conservation strategy with these lands. The lands, in my opinion, are best used by humans for recreation, study, rejuvenation, inspiration, and by the various other creatures and plants we are blessed with in these islands. I think there should be funds for low impact trails and education but mostly they should be left uncarved by human activity.

thanks.

Lopez WA

Mailing List and Comment Form

RECEIVED
JUN 24 2010
Bureau of Land Mgmt
Spokane District

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City [redacted] State: [redacted] Zip: [redacted]

Email Address: [redacted] Organization: —

Do you want your personal information withheld? ☑ YES ☐ NO

Preferred method of contact: ☑ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☑ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

to whom it may concern: We feel the preserved BLM land on Lopez Island is one of the greatest assets of the local residents and provides a natural, prestine setting for recreation, as well as for visitors that are an important part of the local economy on this island. We feel the proposed Resource Management Plan should be implimented to preserve this vital natural resource

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Eastern Washington and San Juan Resource Management Plan

06/24/2010 03:13 PM

To OR_Spokane_RMP@blm.gov
cc Council@sanjauncounty.com,
bcc
Subject Management plan for BLM lands in San Juan Islands

We are writing on behalf of four generations of our family who have had the good fortune to enjoy the beauty of the San Juan Islands. Some of us have lived in the Islands but for the most part we have visited them every summer either by boat or on foot. We have hiked most of the BLM Lands in the Islands and have enjoyed year after year the beauty of places like Iceberg Point. We have on a number of occasions been at the Light House at Turn Point, Stuart Island as the killer whales have rounded the point so close that you it felt like you could almost reach out and touch them.

As you consider a management plan for these very special places we ask that you set as a priority for these lands a commitment to preservation so that future generations will be able to enjoy them in the same way that we have for the past sixty years. We would also ask that you reach out to the Island communities and make them a part of your planning process. We have recently purchased property in the Islands and as we are able to spend more time there and get to know the residents that have chosen to make this their home we are impressed by their commitment to protect and care for these very special places.

Thank you for your consideration.

[redacted]

06/24/2010 12:07 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
RE: RMP for San Juan Islands

Site: Cattle Point

I am a long-time resident of San Juan Island, a naturalist, interpretive specialist, wildlife writer, and frequent visitor to Cattle Point. Over the course of the last twenty years I have spent considerable time on the BLM property at Cattle Point. During my tenure as both a paid consultant and volunteer for DNR (who was managing the BLM property) I have done several on-going surveys of the wildlife that resides either permanently or seasonally on that property, including preparing lists of the plants, birds, and butterflies. During the course of my investigations, it has become clear that the public lands at Cattle Point are important wildlife conservation areas and need to retain that status.

Cattle Point is not only a spectacular scenic realm but a natural treasure of wildlife. The rare island marble butterfly resides there; dozens, if not hundreds, of bird species use the area all or part of each year; and the point is an especially important stop over for birds during spring and fall migration. The willow grove is also an important stop over for migrating butterflies, including red admirals, in the fall. As wild places disappear in the San Juan Islands due to development or the transfer of use of public lands from a conservation status to a recreation status, the importance of Cattle Point grows with each year.

I strongly recommend to BLM that the Cattle Point property be given some kind of conservation status that will allow for the continuing stewardship of the wildlife in concert with appropriate low impact recreational use.

Respectfully submitted,

Friday Harbor, Washington

Preferred method of contact is email.
Preferred RMP/EIS format is a paper copy.

06/24/2010 11:53 AM

To <or_spokane_rmp@blm.gov>
cc <council@sanjuanco.com>,
bcc
Subject Comments on the San Juan Resource Management Plan - Public Scoping

June 23, 2010

RE: **BLM San Juan Islands Resource Management Plan**

Dear Spokane District Office:

I am referencing my comments to you regarding the RMP as both an individual who enjoys visiting the sites and as an adjacent property owner to the BLM Iceberg Point Preserve on Lopez Island.

The BLM properties in the San Juan archipelago are an important complement to the public and private conservation of the island landscape. With its diverse and specialized habitats, this **landscape** is **worthy of preservation**. This landscape is threatened not only from the overall development in the San Juans but also from overuse, pollution, degradation of sites, and simply a lack of an integrated management plan and funding for such a plan for the BLM sites.

By preparing a **fairly restrictive** type of an RMP (**comprehensive** and **long term**) and providing **adequate stewardship** of the plan, BLM has the opportunity to provide a vital level of environmental protection which will enhance the entire island landscape. In doing so the BLM provides a benefit to the residents of the San Juans by helping to preserve the essence of their islands, to those who visit the islands as tourists, and to animal and plant communities which rely upon the BLM sites. Placement of the BLM properties into a system such as a **National Conservation Area** or **National Monument** would be appropriate and welcomed.

Overuse and **neglect** are in my opinion the most immediate concerns needed to be addressed by the RMP. Most of the BLM properties **should not be made off-limits for recreational use**, **but** that use needs to be guided by **reasonable rules to preserve** the **sites**. BLM should provide **infrastructure** on sites such as parking, access, and signage. BLM is not going to stop usage of the sites as historical use will continue and the increased publicity of the properties will bring more usage. But BLM can guide and monitor the usage so that the sites themselves are not destroyed through use. And there do exist some sites, such as the **rocks** and **reefs**, which would be best preserved by prohibiting any recreational use.

Neglect is also a problem. Many BLM sites contain invasive species which should be addressed in order to preserve some of the unique habitats present on these properties. Neglect has contributed to the overuse issue as trails and campsites have developed in sensitive areas. I do want to be clear that neglect is not a reflection of BLM employees' performance but due to a lack of a plan and funding.

As a property owner adjacent to the **Iceberg Point Preserve**, I see evidence of overuse and neglect. As there is no authorized upland public access to the site and very little signage, **visitors often are confused and trespass** on private property. Visitors at times litter, start **campfires**, and block driveways. Many trails have been developed on the Preserve, several going through **fragile lichen** and **cactus** communities. With an RMP the access and usage can be addressed and monitored.

As a property owner I would be interested in a **coordinated effort with BLM** to help preserve the site. This may involve removing invasive species from the site and adjacent properties. The RMP should include plans to involve adjoining properties in protection of the landscape. **Fire management** should also be included in the RMP as many of the BLM sites are not easily accessible.

I will also include another issue regarding **hunting** on the Iceberg Point Preserve. With lack of designated upland access to the Preserve and lack of signage as to the boundaries of the Preserve, I sometimes encounter 'overflow' hunting onto our property. This is a concern, and I would appreciate if the RMP considered hunting to be inappropriate to this particular site as my residence and livestock are nearby.

I look forward in working with the BLM to protect and enhance not only the Iceberg Point Preserve but all the BLM properties in the San Juans. The BLM properties are special and deserve permanent conservation protection and stewardship.

Sincerely yours,

[redacted]

[redacted]

RECEIVED
JUN 25 2010
Bureau of Land Mgmt.
Spokane District

June 21, 2010

Bureau of Land Management
Spokane District
Att: RMP
1103 North Fancher Road
Spokane Valley, WA 99212

Re: San Juan Islands Resource Management Plan

Dear Sir or Madam:

I am writing to comment on your Resource Management Plan for properties in the San Juan Islands. As a local biologist I have had the pleasure of visiting many of these lands over the years and even mapped vegetation communities on Iceberg Point soon after it received its ACEC status. Iceberg, Point Colville, Cattle Point, the Lighthouses – these and the smaller islands and properties boast notable remnants of native plant and animal communities of regional if not national significance. I urge you to make management for native species diversity your top priority in planning for the future of these properties.

Sincerely yours,

[redacted]

06/25/2010 03:12 PM

To OR_Spokane_RMP@blm.gov, council@sanjuanco.com,

cc

bcc

Subject Comments re: San Juan/BLM Resource Management Plan

I am a fulltime Lopez Island resident. I have hiked and visited all the major BLM holdings except Kellett Bluff as well as many of the smaller (unfortunately unnamed) rocks and islands in a variety of boats. I attended the June 5th scoping meeting on the new Resource Management Plan because I care about these holdings. I became a BLM land monitor as soon as I heard about the program and actively and happily participate in those duties. I do so because I quickly came to appreciate the beauty and uniqueness of the BLM lands here. They are a significant part of what made me choose Lopez as my home. BLM lands are a real treasure, a place we take visitors or seek out on our own whenever we can.

I am especially concerned about the "multiple use" designation that drives much of BLM practice. It is a frightening term given the fragility of these jewels and needs to be defined as narrowly as possible. I am a (retired) professional ecologist. My research included impacts of land use practices on natural ecosystems, including the factors that facilitate invasion by alien species. In just about all instances studied, disturbance sets the stage for invasion. Natural areas can be managed for and sustain light recreational use such as hiking and biking trails, but further disruption and disturbance tips the balance away from endemics and other native species and in favor of generalist invaders. The San Juans are no exception.

I strongly encourage BLM to include in the new Management Plan the strongest protection possible for its San Juan holdings They need the most permanent protection possible from development and disturbance, be that as National Conservation Areas or whatever designation best achieves that protection. Such actions will guarantee that these parcels can be appreciated by current and future residents and visitors. Such a visionary approach to land management will be an easily recognizable success story for the Bureau long into the future.

Thank you.

[redacted]

[redacted]

PERM

[redacted]

"Give a man a fish and he'll eat for a day,
Teach a man to fish and he'll deplete the
oceans."

RECEIVED
JUN 25 2010
Bureau of Land Mgmt.
Spokane District

[redacted]

BLM Spokane District
Attn: RMP
1103 N. Fancher Rd
Spokane Valley, WA 99212

To Whom It May Concern:

As a Lopez Island resident who values greatly the recreational, and one might even say spiritual, benefits of our beautiful public shared space I am concerned that the present Bureau of Land Management (BLM) designation of "ACEC (areas of critical environmental concern)" for 450 BLM acres in our Lopez Island lands may not protect these areas for perpetuity or really, even long term.

It is my strong recommendation that the BLM adopt the alternative long term designation "National Conservation Area (NCA)" for these lands which make permanent the conservation and recreational designation not only for these areas but also an additional 450 acres including the Patos Lighthouse and Turnpoint Lighthouses and Kellett Bluff on Henry Island.

Sincerely yours,

[redacted]

Comments for RMP Scoping Document

Submitted by

Please contact by email. I will view documents on the web. Do not withhold personal information.

Comments: From the lack of an RMP and from the list of preliminary issues identified by the BLM, it is obvious that BLM holdings in the San Juan Archipelago are atypical and deserve special consideration. BLM lands in the San Juan Islands have no shrub-steppe habitat or livestock grazing. Issues that are important in the San Juans include prevention of noxious weeds, overuse by recreational users, and protection of upland habitat for salmonid species, marine mammals, and seabirds. The San Juan Archipelago is relatively unspoiled, and the focus needs to be on protection and conservation rather than restoration and mitigation. The RMP needs to provide management for a possible National Conservation Area, which appears feasible and likely; if not, the RMP will be a wasted effort for this area.

Specific decisions that will need to be addressed in the San Juans include:

- management to maintain or contribute toward the restoration of old growth forest stands,
- mainatenance of desired habitat conditions conducive to game species and migratory bird species,
- recognition and use restrictions to maintain suitable upland habitat for salmonid species food sources,
- use restrictions that promote respectful cultural resource protection,
- delineation of lands that are not available for livestock grazing, mineral extraction, and energy production in order to protect other resources.

Although I do not live in eastern Washington, I have some of the same concerns as BLM regarding habitat, species of concern, energy development, and recreation. In general, priorities must be given to habitat maintenance and restoration when allocating resources. As an example, this would mean noxious weeds would get funding before trails, and that grazing <u>management</u> would come before selling grazing rights. Habitat and species restoration and maintenance is a necessity; renewable energy development is a possibility; and recreation is a luxury.

Consolidation is worthwhile if it does not alienate neighbors and stakeholders. It may be easier to manage large blocks of land, but neighboring lands can be an inexpensive asset if the landowners are in agreement with BLM resource management. Working with neighbors is often cheaper than buying them out.

The word “sustainable” is used too often these days, but the concept cannot be used too much. Write a plan for the next 100 years, not the next twenty. Don’t play catch-up – think of setting in place. What is the vision of BLM lands a century from now, and how do we get there?

Thank you for the opportunity to contribute. I look forward to further communication.

Sincerely,

Mailing List and Comment Form

RECEIVED
JUN 25 2010
of Land Mgmt.
District

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

First and Last Name: [redacted]

Address: [redacted]

City: [redacted] State: [redacted] Zip: [redacted]

Email Address [redacted] Organization: _____

Do you want your personal information withheld? ☒ YES ☐ NO

Preferred method of contact: ☒ Email ☐ U.S. Postal Service

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☒ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

My husband and I have enjoyed monitoring the BLM lands on Lopez. We were concerned that these lands were not protected forever. If their protection was to be removed it would be a tragedy for the residents and the visiting public. Therefore, we would like to see these lands come under the umbrella of the National Conservation Area. It would be a wonderful gift for the future generations living on Lopez as well as the visitors.

Sincerely [redacted]

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

Eastern Washington and San Juan Resource Management Plan

Mailing List and Comment Form

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we can

First and Last Na

Address:

City: State: Zip:

Email Address Organization:

Do you want your personal information withheld? ☐ YES ☑ NO

Preferred method of contact: ☑ Email ☐ U.S. Postal Service

RECEIVED
JUN 28 2010
Bureau of Land Mgmt.
Spokane District

Interested in receiving copies of the RMP/EIS?

Please check a box to indicate your preferred method to receive RMP/EIS documents?

☑ View Documents on the web ☐ CD ☐ Paper Copy

Comment (You may also submit comments online at www.blm.gov/or/districts/spokane/plans/ewsjrmp):

SAN JUAN BLM LAND SHOULD BE MAINTAINED FOR HUMAN ACCESS AND RECREATION. HIKING, MT BIKING, BOATING, DISPERSED CAMPING, HUNTING AND SHELLFISH GATHERING. I DESIRE A BALANCE BETWEEN HEALTHY, NATIVE HABITATS AND HUMAN INTERACTION WITH THOSE HABITATS.

BLM LAND IN THE SAN JUANS SHOULD ALSO BE MADE AVAILABLE TO LOCAL SCHOOLS FOR EDUCATION AND RESEARCH, PROVIDING SPACE, OPPORTUNITY, AND EDUCATORS (BLM STAFF).

If you are mailing this form, send it to BLM SPOKANE DISTRICT, ATTN RMP, 1103 N FANCHER RD, SPOKANE VALLEY, WA 99212

07/09/2010 03:58 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
I live on Lopez Island in the San Juans and I hike weekly on the trails here. Today I went up a trail on BLM land. There were a group of volunteers working on a new part of the trail that will enable me to hike to the top of the trail much more easily. Please continue your support of funds and man power on Lopez. Thank you

Preferred method of contact is email.

07/09/2010 07:40 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
BLM land on Lopez is extremely important to both the locals and the tourists. There isn\'t a lot of public lands and the BLM land is extremely important for recreation on the island. I visit the Watmough and Ice Berg point properties a couple of times a month, at least. Please continue to support these very important recreation areas for both the locals and the tourists on Lopez Island. Thank you for your consideration.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

07/09/2010 08:07 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Comments:
I do not think that the blm should lease or sell any land or land rights to any private corporation or be used for private profit in any way.

That means i am against mining and logging on a large scale in wilderness areas.

PROTECT THE GROUNDWATER!

The wilderness should remain wild.

And finally, please, at least here in the San Juans,

STOP ADVERTISING YOUR LAND AND PUTTING SIGNS AND HANDING OUT MAPS AND BUILDING ROADS TO GET MORE PEOPLE ON THE LAND.

I think people that want to experience the wilderness areas will find there own way in there, and the people that need paved access and interpretive centers can go to places where that already exists.

PLEASE!

My family has been in this great country since its founding. I vote. I care. Please don\'t screw the land up any more.

07/09/2010 05:51 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
I enjoy the blm lands and I hike the trails daily. The trails are easy to follow and have minimally impacted the land Please continue to keep the land open and maintained. Nick Teage
great job in outreach and education. Thank you,

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

07/10/2010 08:17 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

Comments:
As property owner on Lopez Island in the San Juans, I would like to express my appreciation of the trails open to the public and the continued support of the islanders and the BLM in maintaining and adding to the trails systems in an incredibly beautiful part of our country.

Preferred method of contact is email.

07/11/2010 10:34 AM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

reet Address:

Comments:
I would like to encourage the continuing of funding the Lopez Island trails. I work at the local museum and get many questions from tourists asking about our local trails and how to get to them. Hiking and biking trails are a wonderful low impact way for visitors to experience our island. Such activities help to keep tourisum dollars coming to our little island.

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.

07/11/2010 09:46 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Input to the RMP

Re: Turn Point in RMP

As one of about 150 members of the Turn Point Lighthouse Preservation Society (TPLPS), I know I speak for most of our members. We envision moving the museum from the "Mule Barn" to the Fog-Signal building as soon as possible. This will give us more space to display the history of Turn Point. There are three rooms there. The large center area will be used as the museum to display old photos and other historical information. The north room will allow us to recreate the area where the keeper of the 1950s stood watch and made radio calls to Patos and Smith Islands. The south room will allow us to show videos that tell the history of Turn Point.

BLM should make restoration of the Fog-Signal building a high priority due to its deteriorating foundation and its boarded up windows and doors. It is highly visible to the public from both the land and the water. This will require completing the transfer of the building from the Coast Guard and restoration of the building. We believe it will cost less than the excellent restoration of a similar building at Patos Island. No water or sewer is required to use as a museum.

TPLPS envisions utilizing the main keepers' quarters for a guest lightkeeper program. This program will be self-sustaining as the guest keeper would pay to stay in the quarters while doing the duties of raising and lowering the flag, opening the museum, greeting the public, and providing general station security. We would like to see two of the units renovated for guests and the south keepers quarters restored to an earlier vintage (1950s or earlier).

Restoration of the keepers' quarters for habitation will require extensive work as well as providing a source of potable water and a septic system. The exterior of the quarters has been restored so most of the effort is inside.

In summary, the restoration of Turn Point as stated above should be a high priority as it is probably the most visible BLM property in the San Juans. It is visited by thousands of people each year from all over the world and should be a showcase of BLM's efforts.

[redacted]

07/11/2010 11:46 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>

cc

bcc

Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

[redacted]

Comments:
Thank-you for welcoming comments for the RMP for the BLM property in the San Juan Islands.My family owns property which is adjacent to the Chadwick Hill property on Lopez Island. I own property myself in the immediate vicinity of Chadwick Hill. We have enjoyed the recreational value of this beautiful piece of land for many years.My comments: I would like to encourage and support continued maintainence of existing trails and the development of \"loop\" trails through out the BLM property.We have been very happy with the upkeep and maintainence of the beautiful trails this property has to offer. I would like to be able to continue to use the lower trails on the property for low key equestrian use. This has been an historical use of the lower trail for many years. We are quite familiar with the layout of this property and do not intend to ever use the upper trails for equestrian use . We would be happy to assist with the planning of new trails and reclaiming of older overgrown trails on the lower eastside of the property. This property is dear to our hearts and we are hopeful the property will continue to be accessible to the public for non-motorized usage. Again, Thank-you very much for taking public comment regarding BLM property in San Juan County.

Preferred method of contact is US Postal Mail.
Preferred RMP/EIS format is a paper copy.

Sent by:

07/12/2010 11:28 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject RMP plan input

I am very concerned about the Turn Point Lighthouse property I am a member of TPLPS but these thoughts are mine only. From what I can gather, the Turn Point light Station on Stuart is a very unique property on the BLM roles. I think their is an opportunity here for the BLM and TPLPS to forge a precedent setting relationship, in the management of this property, between the BLM and a non profit private charitable group (TPLPS).

For the long range plan I think the following considerations are vital to move on into the future.

The BLM must determine a long range goal for the use of the Turn Point Light station. It is my opinion that Turn Point is a National Treasure and should be managed with the goal in mind to, return it to the citizens of the US as an operating historical and educational site of our maritime history. Located at the most NW corner of the continental US, with a panoramic 270 degree view of Canada, an active navigational aid, one of the finest whale watching sites in the San Juans, and an active homeland security site, Turn Point is truly a unique BLM asset.

I think the planning should be approached with the idea of restoration of the keepers quarters and the fog watch building, eventually leading to the keepers quarters being available for the keeper of the week/month program, and the fog watch building housing the TPLPS museum. TPLPS is willing to assist as much as allowed with the keeper program.

Whatever transfer of properties remains between the USCG and BLM should be accomplished yesterday.

Most likely, this restoration will have to be accomplished in stages. I would recommend we restore the fog watch building first, as the foundation needs to be stabilized before it becomes not possible. The fog watch building is a beautiful and unique structure, highly visible, and would make a natural home for the housing of the TPLPS museum. Water and sewage would not be a requirement for this restoration.

Any work done on the main keepers quarters should always be done keeping in mind the needs for septic and water for eventual restoration as a living quarters.

Turn Point is a highly visible property for the BLM, and as such, should deserve the highest priority. I would suggest that BLM concentrate on the planning for Turn Point first, and complete it, and review it, at the earliest opportunity. This way, the chapter/section/ or whatever it is called, in the plan for Turn Point, could be finalized, and we would have a working document to move ahead. I think delaying till 2012 is too long to wait.

I, for one, and I'm sure other TPLPS members too, would be glad to be a participant at any stage of the planning process. I can be free to travel to Spokane or where ever is needed, to participate/aid in this process. TPLPS has some funds and is willing to raise more to assist in these areas.

I think we have wonderful opportunity here, but timeliness is important, to form a unique team and perhaps establish some working guidelines for future BLM/non profit relationships.

Thank you

07/12/2010 08:27 PM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Plan Input - Turn Point

RMP input on Turn Point

As a long time resident of Stuart Island, I have seen the Turn Point Light Station go from an active military installation to an eyesore and back to where it is now. It isn't as bad as it was, but is far from what it should be. Thousands of visitors walk from the State Park to the lighthouse each year. It is a very scenic adventure that should be rewarded with a destination commensurate with the rest of the Island's beauty. BLM has a unique opportunity to make these visitors aware of its capabilities.

The restoration at Patos Island was necessary to preserve the remaining structure but only a small number of visitors can experience it each year due to the limited moorage and strong currents. Also, most of the original buildings are gone at Patos unlike Turn Point which has the full complement of structures and nearby harbors with excellent moorage for hundreds of boats.

I believe that restoration of the fog signal building at Turn Point should be a very high priority. Once completed it should house the museum that is presently jammed into the barn.

I would also like to see the keepers' quarters restored to where it was about 60 years ago. Once completed, one side should be open to the public during the summer months for guided tours and possibly rental for meetings, weddings, etc. The other side with the two units should be made habitable for lighthouse lovers to rent on a weekly basis. This would allow them to experience the duties of a lightkeeper at a remote site.

With the proximity of the structures to the forest at Turn Point, fire is always a danger. No water source exists for potable water or for fire fighting. A good source of water is a high priority as well as a good septic system.

Turn Point is probably the most visited BLM site in the San Juans and deserves a high priority in your planning.

[redacted]

07/12/2010 11:56 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject San Juan Islands Resource Management Planning Public Input

I had previously submitted comments regarding the San Juan Islands. I would like to add to those comments by including this material.

It would be appropriate for BLM to review the properties it owns and manages to see **if there could be appropriate land swaps with other governmental organizations**. For instance, **Iceberg Island** is a Washington State Park owned property that is near the BLM Iceberg Point Preserve on Lopez Island. This island has not been used for a park and is not particularly suited for park use as it is not easily accessible even by boat and is fairly small. It would seem worthwhile to enter into discussions with Washington State Parks to transfer ownership of this property to BLM to be managed as part of the Iceberg Point Preserve. In exchange BLM could transfer to Washington State Parks other parcel(s) which BLM has or is leasing to the parks as these places have historically been used as parks and may be more appropriate for park usage.

As a citizen and taxpayer, I do not want governmental organizations (national, state or county) to be hoarding ownership of properties when the properties could be more effectively managed by other organizations. So **throughout this management planning process please consider if properties would in the long term be better managed under other agencies** such as US Fish and Wildlife or national/state/county parks. In some cases this could be because the agency has programs more appropriate for this type of parcel or has adjoining property which would make management more efficient.

Yours truly,
[redacted]

07/16/2010 11:41 AM

To <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject RMP Plan

To Whom It May Concern:
Thank you for hosting the RMP seminar at Friday Harbor, Washington several weeks ago.
I am a volunteer monitor for BLM lands on Lopez Island, and am currently monitoring Chadwick Hill.
Given the low level of natural resource and grazing potential on the BLM lands in San Juan County, and their environmental fragility, and their potential for recreational enjoyment and education, I urge the designation of the BLM lands in San Juan County as "Natural Conservation Area".
Thank you.

07/18/2010 05:27 PM

To Eastern Washington and San Juan RMP Email <OR_Spokane_RMP@blm.gov>
cc
bcc
Subject Eastern Washington and San Juan RMP Public Request Form -

Requestor:
E-mail address:

Requestor Street Address:

[redacted]

Comments:
Thank you for the informative public meeting in Friday Harbor. My computer had some illness and I was unable to write you until now. Please accept my late comments.

The BLM lands on Lopez Island are near sacred to Lopezians. We hope they will remain available for walking, comtemplation, limited and controlled hunting, artists, and the pure enjoyment of the natural environment. Parking is not that great an issue from my obser ion, hould be carefully addressed in your planning. Thanks,

[redacted]

Preferred method of contact is email.
Preferred RMP/EIS format is download from the BLM website.