UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

March 8, 2004

Reply To
Attn Of: ECO-088

Mr. Russell L. Jorgenson
Federal Highway Administration
Idaho Division Office
3050 Lakeharbor Lane, Suite 126
Boise, Idaho 83703

Ref: 03-084-FHW

Dear Mr. Jorgenson:

The Environmental Protection Agency (EPA) has received the Notice of Intent to prepare an Environmental Impact Statement (EIS) for the proposal to improve **US 95 Thorn Creek to Moscow, Idaho**. While we intend to participate in the resource agency scoping meeting and field trip planned for this spring as well as subsequent opportunities for interaction, we feel there is value in offering comments prior to the meeting, at the earliest possible stage, to enable project proponents to incorporate them into project planning. These comments are submitted pursuant to our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The following is not a comprehensive list of issues that should be addressed in the environmental analysis, but it includes those that we think should be emphasized based on the limited information we currently have about the project and the affected area:

High value habitats – need for avoidance, minimization of impacts and context sensitive design. From phone conversation and the Notice of Intent we understand that the subject corridor for this EIS is a 6.1 to 7.4 mile subset of the larger 20.8 mile corridor studied in the *Top of Lewiston Hill to Genesee and Genesee to Moscow Environmental Assessment (EA)*. While we do not have a description of the subject segment for this EIS, we anticipate that high value Palouse prairie habitat, wetlands, and streams are in the project area and may be affected by the proposed project. The EA (p. 22) states that remnants of Palouse prairie occur mostly on steep slopes and in marshy areas. An occurrence of Spalding's catchfly (*Silene spaldingii*), proposed as threatened under the Endangered Species Act (ESA), has been documented in habitat surveys for the EA. According to the U.S. Fish and Wildlife Service (USFWS), the threatened Ute ladies' tresses (*Spiranthes diluvialis*), and the threatened water howellia (*Howellia aquatillis*), may also occur in the EA project area. White tail deer, chukar, Hungarian partridge, bobwhite and California quail, waterfowl, and several species of concern, including ring-necked snake, northern alligator lizard, wolverine, fisher, long-eared myotis, fringed myotis, Northern goshawk, Northern pygmy owl, and pygmy nuthatch also occur in the EA

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project area.

Based on the above information, it will be important to use extraordinary sensitivity, or Context Sensitive Design, in the design and placement of the roadway to ensure that the natural values and functions of the area, as well as any identified social, cultural, historical, and/or scenic values, remain intact. One of the most critical aspects of applying context sensitive design is the preservation of ecological connectivity (see explanation below). This can best be achieved using avoidance and minimization of impacts – which are the first and second priorities for mitigating impacts – through sensitive planning, alternatives analysis, siting and design. Compensatory mitigation is appropriate only for truly unavoidable impacts that cannot be further addressed through improved siting and design when an action alternative is selected.

We anticipate that avoidance of sensitive, rare, and/or high value terrestrial and aquatic habitats will be the most significant environmental need for this proposed project. Maintaining habitat connectivity and providing for safe and effective movement of wildlife and aquatic species will be a necessity.

Ecological connectivity. The roadway alternatives will, to varying degrees, potentially fragment habitats, create a barrier to wildlife movement, result in wildlife roadkill, and sever other aspects of ecological connectivity in the project area. The EIS should provide an analysis of the alternatives with respect to ecological connectivity needs and impacts, and include adequate mitigation measures to avoid and minimize the impacts. The EIS should include this analysis and propose mitigation for both terrestrial and aquatic ecosystem processes, habitats, and species in consultation with the resource agencies.

For terrestrial species, this will involve identifying habitat linkages (movement corridors) that need to be preserved or re-established, safe wildlife crossings/structures under or over the roadway that accommodate the species residing in the area, and fencing that effectively prevents wildlife entry onto the roadway and that funnels them to safe crossing locations/structures. These actions provide for the safety of both wildlife and motorists.

Ecological connectivity is a broader concept, however, than wildlife movement in the landscape. It includes the connections and interactions between land and water, the transfer of water, wood, soil, nutrients, genes, species, and so on. For example, ecological connectivity is impaired when a stream is channelized and separated from its flood plain; when shoreline structures or bank armoring block sediment flows and shoreline enrichment processes; when dams are built or culvert installation block fish passage; when wetland fills or impervious surface prevent ground water aquifer recharge; when hillslope cuts breach seepage areas, springs, or underground aquifers; when aquatic habitat hydrological alterations and development interfere with surface water/ground water interactions and riverine hyporheic zones; and so on. Environmental impact assessments need to focus much more on identifying these connections and the consequences of severing them; project design should incorporate the means to preserve them.

Aquatic resources. Road construction may affect aquatic resources: (1) additional human use in and around streams as well as construction of and additional runoff from impermeable road

surfaces will adversely impact water quality; (2) wetlands and riparian areas located adjacent to the road may be encroached upon and their hydrologic function altered; and (3) road encroachment may degrade the habitat for fish and other aquatic biota. For any impacts that cannot be avoided through siting and design, the NEPA document should describe the types, location, and estimated effectiveness of best management practices (BMPs) applied to minimize and mitigate impacts to aquatic resources.

To meet the requirements of the Clean Water Act, the NEPA document must identify all water bodies likely to be impacted by the project, the nature of the potential impacts, and the specific pollutants likely to impact those waters. If there are Clean Water Act 303(d)-listed waterbodies, the NEPA document must additionally state whether a Total Maximum Daily Load (TMDL) has been developed for the streams and the pollutant(s) of concern. Provisions for antidegradation of water quality apply to streams where water quality standards are presently being met.

Wetlands and riparian areas. The proposed road construction may affect the functions, structure, and hydrologic flow of any impacted riparian areas and wetlands. The NEPA document should describe riparian areas, including widths, types of vegetation, and functional values and integrity. The document should provide wetland determinations, estimated acreage, types, and ecological functions of wetlands in the planning area. Also, the document should address in detail the potential loss of riparian and wetland functions and diminished water quality under each of the action alternatives.

The proposed activities may require a CWA Section 404 permit, both for in-stream and wetland alterations. For wetlands, section 404(b)(1) guidelines state that impacts to wetlands are to be (1) avoided, (2) minimized, and (3) mitigated. The NEPA document should discuss in detail how planning efforts conform with decision-making direction specified in Section 404(b)(1) guidelines. FHWA must show, under Section 404, that they have avoided impacting the wetlands to the extent possible. The NEPA document should discuss alternatives that would not impact wetlands before proceeding to minimization/mitigation measures. Wetland mitigation measures should be designed to replace wetland functions lost as a result of the project. Wetland functional assessments should be used to demonstrate the adequacy of the wetland mitigation efforts.

Endangered, threatened, candidate, sensitive species. If the proposed project activities could affect species listed under the Endangered Species Act as threatened or endangered, the NEPA document should include the Biological Assessment and the associated FWS or NMFS Biological Opinion or formal concurrence for the following reasons:

- NEPA requires public involvement and full disclosure of all issues upon which a decision is to be made.

- The CEQ Regulations for Implementing NEPA strongly encourage the integration of NEPA requirements with other environmental review and consultation requirements (40 CFR

1502.25).

- The Endangered Species Act (ESA) consultation process can result in the identification of mandatory, reasonable, and prudent alternatives that can significantly affect project implementation.

Since both the Biological Assessment and the NEPA document must evaluate the potential impacts of the project on listed species, they can jointly assist in analyzing the effectiveness of project alternatives and mitigation measures. EPA recommends that the final NEPA decision document not be completed prior to the completion of ESA consultation. If the consultation process is treated as a separate process, the federal agency risks FWS and/or NMFS identification of additional significant impacts, new mitigation measures, or changes to the preferred alternative. If these changes have not been evaluated in the original NEPA document, a supplement to the document would be necessary.

In addition to federally listed endangered and threatened species, there may also be state listed species, candidate state or federal species, and other sensitive or declining plant and animal species and their habitats in the project area. We recommend that the state Natural Heritage Program, the state and federal fish and wildlife agencies, and other appropriate authorities on the conservation of biological diversity be contacted to identify these species and their habitats. The EIS should disclose these sensitive species and habitats, and the alternatives presented should reflect all possible measures to avoid and minimize disturbance or harm to them.

Invasive species. Ground disturbing activities create opportunity for establishment of non-native invasive species. In compliance with NEPA and with the Executive Order 13112, analysis and disclosure of these actions and their effects, as well as any mitigation to prevent or control such outbreaks should be included. We urge that disturbed areas be revegetated using native species, including a native grass and forb mixture to ensure adequate coverage to prevent establishment of invasive plants, and that there be ongoing maintenance (wholly or primarily non-chemical means) to prevent establishment of invasives in areas disturbed by project activities.

Indirect/secondary, and cumulative effects. In addition to the direct impacts to the natural and human environment, secondary and cumulative impacts should be analyzed and disclosed. Examples include increased and induced vehicle miles traveled (VMT); induced growth and development and its associated terrestrial and aquatic habitat losses, fragmentation, and alterations, water and air quality effects, fish and wildlife mortality and disturbance effects, and other impacts that are likely to result. The affected environment for each resource category should be adequately described to establish past impacts, and existing baseline conditions and stresses to those resources, so that the added effects can be discerned.

Cultural resources. The intact, high value habitats in the project area may also have significant cultural value for Native Americans, such as the Nez Perce, Colville, and Coeur d'Alene

Tribes. Impacts to tribal cultural resources and historic and archeological resources need to be disclosed in the EIS.

Under NEPA, the scope of cultural resource analysis should include direct and indirect impacts to traditional resource rights, historic buildings, historic districts, archeological sites, Native American traditional places, sacred sites, environmental justice issues, and traditional ways of life. The following is a list of specifics that we believe should be addressed in the EIS for a complete analysis of cultural resources:

- sacred sites (see Executive Order 13007);
- traditional cultural properties or landscapes;
- hunting, fishing, gathering areas (including impacts to ecosystems that support animals and plants that are or once were part of the tribes' traditional resource areas);
- access to traditional and current hunting, fishing, and gathering areas and species (berries, root foods, basket weaving materials, fire wood, elk, deer, trout, and any other species of concern to the tribes);
- changes in hydrology or ecological composition of springs, seeps, wetlands, and streams, that could be considered sacred or have traditional resource use associations;
- travel routes that were historically used, and travel routes that may be currently used;
- historic properties, districts, or landscapes;
- cultural uses of the natural environment, the built environment, and human social institutions;
- unique characteristics of the geographic area such as proximity to historic or cultural resources (40 CFR 1508.27(b)(3));
- the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (40 CFR 1508.27(b)(8) in accordance with the National Historic Preservation Act (NHPA);
- Potential disproportionate or adverse environmental impacts to low income and minority populations (see E.O. 12898); such impacts may be cultural, for example, impacts on a culturally important religious, subsistence, or social practice should be addressed;
- impacts to Indian Sacred Sites. E.O. 13007 requires that federal agencies minimize damage to sacred sites on federal land, and avoid blocking access to such sites by traditional religious practitioners.

EPA recommends conducting ethnographic interviews and compiling ethnohistoric information about the area. EPA also recommends close consultation with the tribes (see E.O. 13175), and the appropriate State Office for archaeology and historic preservation.

We recommend that NHPA Section 106 review be conducted during the preparation of the DEIS and that consultation be initiated with affected and potentially affected tribes and Native American descendants. Consultation to resolve adverse effects should be coordinated with public

comment on the DEIS, with the results reported in the Final EIS. Any Memorandum of Agreement (MOA) developed under Section 106, or the final comments of the Advisory Council on Historic Preservation (ACHP), should be addressed in the ROD. The Section 106 MOA should be fully executed before the ROD is issued, and the ROD should provide for implementation of the MOA's terms.

Social/cultural effects and Environmental Justice. We recommend conducting community impact assessments for communities that are most affected by the proposed project. The Federal Highway Administration (FHWA) publication, *Community Impact Assessment: A Quick Reference for Transportation* [publication No. FHWA-PD-96-036, HEP-30/8-96(10M)P], is available as guidance, and pertinent websites can also provide information. Historic resources and the full range of tribal treaty resources, as discussed above, should be addressed. Formal consultation should be conducted regarding both their natural and cultural resources affected by the proposed project. Useful references include:

- http://www.npi.org/nepa/index.html regarding NEPA and cultural resources;
- http://www.epa.gov/compliance/resources/publications/ej/ips_consultation_guide.pdf includes the document, *Guide on Consultation and Collaboration with Indian Tribal Governments and the Public Participation of Indigenous Groups and Tribal Members in Environmental Decision Making.*
- Executive Orders:
  - E.O. 13175, Consultation and Coordination with Tribes;
  - E.O. 13007, Indian Sacred Sites;
  - E.O. 12898, Environmental Justice.

In compliance with NEPA and with E.O. 12898 on Environmental Justice, actions should be taken to conduct adequate public outreach and participation that ensures the public and Native American tribes truly understand the possible impacts to their communities and trust resources. Environmental Justice communities and tribes must be effectively informed, heard, and responded to regarding the project impacts and issues affecting their communities and natural and cultural resources. The information gathered from the public participation process and how this information is factored into decision-making should be disclosed in the EIS.

The U.S. has a unique relationship with tribal governments, which requires that federal government plans, projects, programs and activities assess impacts on tribal trust resources. Agencies shall assess all impacts to tribal trust resources and include those impacts in the agencies' environmental documents. In accord with the Executive Memo of April 29, 1994, on Government-to-Government Relations with Native American Tribal Governments, each federal agency shall consult to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally-recognized tribal governments.

Air Toxics. There is heightened concern for human health from projects that result in air toxics emissions and particulate matter from mobile sources, particularly diesel exhaust. The EIS should disclose the human health effects of air toxics and particulate matter from mobile sources, and identify any sensitive receptor locations for the project. For receptor locations, we recommend that hotspot analysis be conducted for these pollutants, and that construction mitigation measures be included. We have enclosed a list of potential mitigation measures to reduce emissions during construction.

We appreciate the opportunity to offer these comments and look forward to working collaboratively on the project with FHWA and all interested and affected parties. Please contact me at 206/553-2966 or somers.elaine@epa.gov, if you have questions or would like to discuss these comments.

Sincerely,

Elaine Somers
NEPA/309 Environmental Review
Geographic Unit

Enclosure

Mitigation Measures to Reduce Emissions During Construction

- Properly maintain construction equipment;
- Evaluate the use of available alternative engines and diesel fuels:
  - -engines using fuel cell technology
  - -electric engines
  - -engines using liquified or compressed natural gas
  - -diesel engines that meet the proposed EPA 2007 regulation of 0.01 g/bhp-hr (grams per brake horsepower hour)
  - -diesel engines outfitted with catalyzed diesel particulate filters and fueled with low sulfur (less than 15 ppm sulfur) fuel
  - -diesel engines fueled with biodiesel (diesel generated from plants rather than petroleum)
  - -fueling on-site equipment, e.g., mining equipment, with lower sulfur highway diesel instead of off-road diesel fuel;
- Reduce construction-related traffic trips and unnecessary idling of equipment;
- Use newer, "cleaner" construction equipment;
- Install control equipment on diesel construction equipment (particulate filters/traps (DPTs), oxidizing soot filter, oxidation catalysts, and other appropriate control devices to the greatest extent that is technically feasible.) A particulate filter ("P-trap" or oxidizing soot filter) may control approximately 80% of diesel PM emissions. An oxidation catalyst reduces PM emissions by only 20%, but can reduce CO emissions by 40%, and hydrocarbon emissions by 50%. Different control devices may be used simultaneously.
- Reroute the diesel truck traffic away from communities and schools.
- Adopt a "Construction Emissions Mitigation Plan (CEMP). A CEMP would help to ensure that the procedures for implementing all proposed mitigation measures are sufficiently defined to ensure a reduction in the environmental impact from diesel PM and NOx due to the project's construction. CEMP inclusions:

All construction-related engines are tuned to the engine manufacturer's specifications in accordance with the time frame recommended the engine manufacturer; not idle for more than 5 minutes; not tampered with in order to increase engine horsepower; include particulate traps, oxidation catalysts and other suitable control devices on all construction equipment used at the construction site; and use diesel fuel having a sulfur content of 15 ppm or less, or other suitable alternative diesel fuel. Minimize construction-related traffic trips through appropriate policies and implementation measures.

Implement an adaptive mitigation measure program over the project's construction phase.