INTRODUCTION

This Decision Notice and Finding of No Significant Impact documents my consent to the USDI Bureau of Land Management (hereinafter referred to as BLM) for issuing two Federal Hardrock Mineral Prospecting Permits, and specifies conditions, recommendations, and notices¹ for use and protection of the National Forest System lands involved (Attachment 1). The BLM serialized the prospecting permit applications as WAOR-066628, containing 680.67 acres, and WAOR-066973, containing 217.27 acres (collectively about 900 acres) on the Gifford Pinchot National Forest in the west-central portion of Washington State. I have selected Alternative 4: Drill Site Riparian Reserve Avoidance. This alternative was newly designed and analyzed in the modified environmental assessment (EA) No. DOI-BLM-ORWA-0000-2016-0001-EA, as a result of litigation of the original decision. Alternative 4 provides Forest Service consent with specified and recommended conditions, and notices to best address the balance between resource use and resource protection, with an emphasis on the protection of riparian reserves.

The BLM prepared an environmental assessment (EA) in response to two prospecting permit applications submitted by Ascot USA, Inc. The Forest Service participated as a cooperating agency in developing the EA in 2012 and modified EA in 2015. The permit areas are within portions of sections 7, 8, 9, 16, 17, 18, and 19 of Township 10 North, Range 6 East, Willamette Meridian, Skamania County, Washington (Attachment 2). The lands involved are further described in Table 2.1-1 in the modified EA. The lands are located on and adjacent to the south-facing slope of Goat Mountain, approximately 12 miles northeast of Mount St. Helens. The area receives recreational users, horseback riding, campers, and hunting. These lands are adjacent to and extend northeast from the boundary, of Mount St. Helens National Volcanic Monument.

The Secretary of Interior, though the BLM, is responsible for managing the federal mineral estate and has the authority to grant prospecting permits. The applicable regulatory framework sets out that the BLM can only issue prospecting permits with the consent of the surface managing agency, in this case the Forest Service. Consent is contingent upon specified and recommended conditions, and notices, and a determination that the activities will not interfere with the primary purposes for which the lands were acquired. Both agencies have worked cooperatively to evaluate the permit applications. The National Forest System lands involved were acquired under the authority of the Weeks Act of 1911 for the purposes of regulating the flow of navigable streams or for the production of timber.² The Mineral Resources on Weeks Law Lands, 1917

¹ Consent decision with certain stipulations including specified and recommended conditions, and notices listed in Attachment 1.
² P.L. 61-435, as amended
established that the Secretary of Agriculture could authorize the prospecting, development, and utilization of mineral resources of the lands acquired under the Weeks Act of 1911. These functions were transferred to the Secretary of Interior in the Reorganization Plan No. 3 of 1946.\textsuperscript{3}

This decision is based on the Goat Mountain Hardrock Prospecting Permit Applications EA that was modified on November 30, 2012; December 17, 2015; and August 7, 2017. A decision on the original EA in 2012 was vacated in a civil action before the U.S. District Court of Oregon (Court) in August 2014. The Court’s Opinion and Order dated July 3, 2014, identified several deficiencies of the analysis in the 2012 EA. To comply with the Court’s direction, the agencies used the 2012 EA to prepare a modified EA that addresses each of the concerns, including the creation of Alternative 4.

**BACKGROUND**

A number of laws guide the overall Forest Service mission to “sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations.” These laws include the Multiple-Use-Sustained-Yield Act (1960), which requires National Forest System lands to be administered considering the values of various resources in management decisions and provides that nothing in the Act affects the use or administration of mineral resources on National Forest System lands; the National Forest Management Act (1976), which requires the Forest Service to keep a detailed inventory of lands and resources, and to consider the physical sciences in interdisciplinary planning for use of National Forest System resources; and the Mining and Minerals Policy Act (1970), stating that it is the continuing policy of the Federal government to encourage development of economically sound and stable domestic mining and minerals industries and the orderly development of domestic mineral resources.

Consistent with these and other statutes, Forest Service Manual 2802 establishes an agency objective to “ensure that exploration, development, and production of mineral and energy resources are conducted in an environmentally sound manner and that these activities are integrated with the planning and management of other National Forest resources.”

The Gifford Pinchot National Forest Land and Resource Management Plan (“forest plan,” 1990) as amended by the “Northwest Forest Plan” of 1994 provides long-term policy for management of Forest Service and BLM administered lands within the range of the northern spotted owl. The forest plan prescribes natural resource management activities and implementation regulations for the Gifford Pinchot National Forest and embodies provisions of the National Forest Management Act, the statutes mentioned above, and others. The forest plan designated the lands associated with the permit applications as general forest, with an emphasis on timber production. The Northwest Forest Plan amendment allocated most of these lands as matrix lands, which are managed for multiple uses, including timber harvest. Areas along the Green River and other streams, water bodies, wetlands, and unstable areas were designated as riparian reserve by the Northwest Forest Plan. Standards and guidelines in the Northwest Forest Plan are required to protect environmental quality for management activities, and these differ based on the land allocation. The EA (pp. 12-13) summarizes the forest management framework of the forest plan, and displays land allocations and management area categories (App. A, Fig. 5) of the forest plan. Forest management direction is detailed in the forest plan (IV-1-139). The management direction

\textsuperscript{3} 43CFR3501.1(b)
in the Gifford Pinchot Forest Plan, and the Northwest Forest Plan allow for mineral activity in the applicable land allocations, and establish certain standards and guidelines for management of mineral and other activities.

The Goat Mountain area has historically been dominated by logging, recreation, mineral prospecting, and limited mineral development. Mineralization of interest was discovered in the late 1800s, with mining claims established in 1901 and 1904. Sporadic development has occurred by various surface and subsurface workings. The area was the subject of limited exploration programs by Duval Corporation in the late 1960s and the early 1970s. Field work halted in 1980 following the eruption of Mount St. Helens. Recent increases in copper and gold prices and improvements in technology have spurred renewed interest in exploring for hardrock minerals.

There has been considerable concern and interest around the possibility of hardrock mineral development in northwest Skamania County. My consent decision to the BLM facilitates only prospecting (exploration) activities within the prospecting permit areas. It is not a mineral leasing or development (mining) proposal. BLM decisions to issue prospecting permits based on Forest Service consent confers exclusive rights to the permit holder to prospect on and explore the specific lands within a permit area to determine the existence of a valuable mineral deposit. If a valuable mineral deposit is located, a permit holder could then apply to BLM for a non-competitive lease to develop the valuable minerals discovered under the prospecting permit. However, any subsequent application for a lease of the Federal mineral estates would be subject to a separate National Environmental Policy Act (NEPA) analysis and public comment process, to be evaluated on its own merits, and would require a separate decision in which the Secretary of Agriculture, through the Forest Service, would deny or consent to leasing (Attachment 1, Notice 1).

In processing proposals for legal instruments such as prospecting permits, the Forest Service and the BLM cooperate under the terms of a 1984 Interagency Agreement for Mineral Leasing, which acknowledges that in certain cases the Forest Service has consent authority, and in others makes advisory, non-binding recommendations to the BLM regarding issuance of the legal instrument, and binding terms and conditions for the use and occupancy of National Forest System lands. My consent decision includes both specified and recommended conditions for the BLM, which stipulate the prospecting permits. Though the BLM is not legally obligated to accept Forest Service recommendations, they routinely do incorporate them as part of their independent decisionmaking. Further, all activities must be consistent with the surface agency’s land management plan (in this case, the forest plan) and other applicable laws, regulations, and policies. In the event there is disagreement, the BLM and Forest Service will consult to resolve any outstanding issues.

In this particular case, the applicable statute allows me to specify conditions for use and occupancy of the lands included in the prospecting permits, so long as those conditions are related to the primary purposes for which the lands were acquired as established in the acquisition authority. I must also include conditions required by Forest Service policy in the Forest Service Manual at FSM 2820 that would require the permittee to comply with rules and

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4 BLM must determine the existence of a “valuable deposit” based on data gathered from exploration activities authorized under a prospecting permit (43CFR3507.18).
regulations of the U.S. Department of Agriculture, and that emphasize the Forest Service consent authority for subsequent leasing actions, should they be proposed in the future. Further, I can recommend conditions to the BLM for protection of other surface resources analyzed in the EA, such as protection of the northern spotted owl by setting seasonal restrictions for operations in suitable habitat for the species. Finally, I can include notices that clarify for the potential permittee other requirements for use of National Forest System lands established in law, regulation or policy—that would also restrict where operations may be conducted within the permit area, such as the prohibitions against road construction, reconstruction and timber harvest found in the 2001 Roadless Area Conservation Rule (36 CFR Part 294), which would apply to the portions of the permit areas that overlap with the Tumwater Inventoried Roadless Area. Together, these conditions, and notices would be included by the BLM on the prospecting permits as special stipulations, should the BLM decide to issue the prospecting permits. As established in BLM regulations, the permittee would then be obligated to design their subsequent operations to comply with the terms, conditions and stipulations made part of the prospecting permit.

As noted in the EA, the BLM’s proposed action is twofold; it includes issuing the prospecting permits based on Forest Service consent, and then approving the exploration plan with conditions specified by the BLM and recommended by the Forest Service. Regarding approving the exploration plan, the BLM is bound by its regulations at 43 CFR 3590 to consult with the Forest Service as the agency with jurisdiction over the lands regarding surface use and reclamation aspects of the plan, prior to approving the plan. This requirement would also apply to any modifications made to the exploration plan prior to expiration of the prospecting permits.

When managing operations on a prospecting permit, the BLM and Forest Service follow the process described in the previously mentioned 1987 Interagency Agreement for Leasable Mineral Operations on the NFS. This interagency agreement commits the BLM to providing the Forest Service with any operating plan and requesting its recommendations on appropriate “conditions of approval” for the protection of surface resources, integration with other authorized uses of the surface, and required reclamation. In this process, I can recommend reclamation requirements to restore the beneficial use of surface resources where ground-disturbing activities were conducted, and bring forward other conditions of approval related to operational activities. The Forest Service will draw on the best management practices identified in the EA, forest plan direction, and other applicable guidance when responding to the BLM with recommendations for conditions of approval for the exploration plan. Forest Service recommendations would be presented in the BLM’s conditions of approval attached to an exploration plan, which would authorize the permittee to conduct exploration operations.

**DECISION**

Based upon my review of the EA for the Goat Mountain Hardrock Mineral Prospecting Permit Applications and supporting project record, I have decided to consent, with certain specified and recommended conditions, and notices, to BLM issuing the hardrock mineral prospecting permits for National Forest System lands described in Applications WAOR-066628 and WAOR-066973 within the Gifford Pinchot National Forest. I consent to prospecting permit issuance as described in Alternative 4, which includes certain specified conditions and recommendations, and notices
that are within the legal and regulatory purview of the Forest Service as the surface managing agency (Attachment 1).

My decision specifies and recommends conditions and notices (Attachment 1) necessary for the use and protection of approximately 900 acres of National Forest System lands involved in the permit applications, including: conditions related to and consistent with the Gifford Pinchot Forest Plan and Northwest Forest Plan (see best management practices table in Attachment 1), the Tumwater Inventoried Roadless Area (Notice 3), the integrity of the Green River and riparian reserves (Conditions 4 and 5), and the northern spotted owl (Condition 6). Foreseeable exploration activities under Alternative 4 are the same as those described for Alternative 3, except for the condition of my consent restricting new surface disturbance in riparian reserves. Alternative 4 eliminates drill sites 6 and 7, and prohibits any future placement of new project facilities within riparian reserves. Alternative 4 includes all design features and alterations from Alternatives 2 and 3, including, but not limited to, changes in drilling and abandonment operations and procedures, drilling fluid management to protect surface and groundwater resources; timing restrictions to protect the spotted owl habitat and recreation resources, and the use of a drill shack/baffling/insulation to reduce noise and light intrusion into surrounding environs. (Note: The “Other Alternatives Considered” section of this document provides a brief summary of alternatives. Chapter 2 of the EA (pp. 23-39) provides a detailed description of alternatives including standard stipulations, best management practices, and design features.)

These specified and recommended conditions, and notices, along with analyses documented in the EA and the project record, support the Forest Service finding that prospecting permits and associated activities will not interfere, or be inconsistent with the primary purposes for which the lands were acquired under authority of the Weeks Act of 1911. Additionally, for lands acquired with funds from the Land and Water Conservation Fund, the prospecting permits and associated activities are not inconsistent with the primary purpose of outdoor recreation (see “Findings Required by Other Laws and Regulations” in this document).

Following this Forest Service consent decision, the BLM will decide whether to issue the prospecting permits, and subsequently, whether to approve the exploration plan. Activities contemplated in the foreseeable exploration plan include directionally drilling approximately 63 small-diameter (2 to 3 inches) boreholes from 21 drill sites, affecting about 0.23 acres, and the use of portable equipment to recover rock core samples. This use is proposed on or immediately adjacent to existing roads and drill sites, some of which are currently decommissioned and will require temporary reactivation. The existing drill sites were previously established by another exploration company in the early 1980s.

**DECISION RATIONALE**

Throughout the process of analyzing this request from the BLM for Forest Service consent to the prospecting permits, it has become clear there is a great deal of concern that this decision somehow makes the potential for future approval of a new mine in this area easier or more likely. This consent decision is not for a mineral lease or mining; it is specific to issuance of prospecting permits that would convey rights to the holder to conduct exploration operations subject to terms and conditions of the prospecting permits. This activity is very similar to other investigative activities routinely authorized on National Forest System lands in support of endeavors such as volcanic activity research, groundwater investigations, road construction and maintenance, slope
stabilization, river side channel restoration, quarry development or abandonment, historical or geological research, and historical or previous mineral exploration activity conducted on these same lands.

There is no proposal for a mineral lease or mine in this location. Any potential future proposal would be subject to an entirely new and comprehensive environmental analysis and decision process to include multiple opportunities for the public and other interested parties to be informed, to consult, to comment on scoping and draft analyses, and to object to any draft decision. As described in the EA (Section 3.1), future mining is not a reasonably foreseeable future action (see 36 CFR 220.3); therefore, it is not evaluated in the environmental analysis. Again, this consent decision is for prospecting permits that facilitate mineral exploration activity only; it does not apply to leasing or mining.

In making the Forest Service consent decision, I have considered how the alternatives analyzed in detail would meet the purpose and need of the Federal Hardrock Mineral Prospecting Permits, as well as the environmental effects of each alternative. Alternatives 2, 3 and 4 each provide for Forest Service consent with conditions. However, Alternative 4 specifically addresses the Northwest Forest Plan direction for protecting riparian reserves. Compared to other alternatives, Alternative 4 is most consistent with the Northwest Forest Plan and forest plan for riparian reserve protection and minerals management; provides the best balance between resource use and resource protection; and best responds to issues raised by the public, State, Tribal, and local governments, and other agencies.

The “Goat Mountain Hardrock Prospecting Permit Applications Modified Environmental Assessment” (EA) documents the environmental analysis and conclusions upon which this decision is based. I have carefully considered these tradeoffs in making my decision. While Alternative 4 was created to reduce impacts to riparian reserves (EA, Section 3.6.2.4.1), I am also choosing this alternative because of the reduced impacts on recreation. By specifying the condition that no new surface disturbance could occur in riparian reserves, the BLM cannot approve an exploration plan that includes pads 6 and 7 (located in the riparian reserve and the Green River Horse Camp), or any other disturbance in riparian reserves for the duration of the prospecting permits. By including this and other specified or recommended conditions, and notices in my consent decision, there will be no direct effects on visual or scenic resources associated with campsites in the vicinity of the Green River Horse Camp, or direct effects on the recreational experience associated with the use at the horse camp (EA, Sections 3.9.2.4.1, 3.12.2.4.1, and 3.14.2.4.1). The selection of this alternative also has less potential to impact Van Dyke’s salamander and deer and elk than the other action alternatives (EA, Sections 3.5.2.4.1 and 3.5.2.4.2).

The Forest Service has a legal and regulatory responsibility to respond to the BLM’s request for consent on the two prospecting permits for the purposes of exploring for valuable deposits of mineral resources, with conditions for protecting surface resources on the Gifford Pinchot National Forest. My decision is consistent with this purpose as it will facilitate the exploration of various mineral resources in an environmentally sound manner. This decision is consistent with the Federal government’s overall policy to foster and encourage private enterprise in the development of economically sound and stable mining and mineral industries, and to help assure
the orderly and economic development of mineral resources to satisfy industrial, security and environmental needs.\(^5\)

The selected alternative and decision responds to the overall guidance of the forest plan to encourage and facilitate the orderly exploration, development, and production of mineral and energy resources within the National Forest System in order to maintain a viable, healthy minerals industry, and to promote self-sufficiency in those mineral and energy resources necessary for economic growth and the national defense (forest plan, p. IV-4).

The EA describes and evaluates Alternative 4, which provides for consent, along with certain specified and recommended conditions, and notices the Forest Service has determined are suitable and necessary to protect National Forest System lands, and prevent interference with the primary purposes for which the lands were acquired. The EA and project record also document other values and uses on these National Forest System lands that were taken into consideration during the analysis. The specified and recommended conditions and notices included as part of Forest Service consent are necessary to comply with requirements of the 2001 Roadless Area Conservation Rule (36 CFR Part 294) for the Tumwater Inventoried Roadless Area; the eligibility of the Green River for potential inclusion in the Wild and Scenic River System; the range of the northern spotted owl; the forest plan; and other applicable regulations (Attachment 1). All practical means to avoid and/or minimize environmental impacts that might occur from proposed activities have been incorporated into the project design and stipulations. The agencies took a hard look at the comments received on the EA, especially regarding wildlife and groundwater. A comment matrix was developed as part of the project record and I have evaluated this information, along with clarifications made to the EA to inform my decision.

Making a decision on resource use is a complex process and results in tradeoffs between resource effects and resource benefits. I am aware of the interactions between the various resources, including the direct, indirect, and cumulative effects of the proposed action on different resources, and have taken these into consideration (EA, Chapter 3). Assuming the BLM issues the prospecting permits after receiving consent from the Forest Service and then approves the exploration plan in consultation with the Forest Service on surface use and reclamation aspects of the plan, the subsequent effects of this decision would be limited in nature and occur only for a short duration. This is because prospecting permits are valid for an initial two-year term, with opportunity to extend them for four years subject to BLM’s regulations. In addition, specified or recommended conditions limit some activities and uses to protect certain resources within the prospecting permit areas. If BLM issues the prospecting permits, the Forest Service’s specified and recommended conditions, and notices would become part of the prospecting permit’s terms and conditions as special stipulations, as well as any additional BLM-required mitigation described in the EA along with the standard terms of the permits.\(^6\)

Most of the lands are in the blast zone from the 1980 eruption of Mount St. Helens, and were salvage logged and reforested in the 1980s. Subsequent to Forest Service consent, should the BLM issue the prospecting permits and then approve the exploration plan in consultation with the Forest Service, disturbance from the proposed drill sites would be less than one-quarter of an

\(^5\) Mining and Minerals Policy Act of 1970

\(^6\) 43CFR3505.55
Access to these sites would require the temporary reactivation of approximately 1.7 miles of partially closed roads, resulting in about 3 acres of disturbance. This activity would occur on or immediately adjacent to existing roads and former drill sites. In accordance with the regulatory requirements, all disturbances would be fully reclaimed. Upon being consulted for the exploration plan, the Forest Service would bring forward recommended conditions of approval based on any resource concerns and forest plan and other direction; and BLM would require design features and necessary environmental protection measures (EA, Sections 2.1.2.3; Appendix E, Best Management Practices).

I have also considered the issues and have taken into account the competing interests and values of the public. I have considered the diverse views expressed during the public scoping and public comment periods. Clarifications were made to the EA, based on public comments regarding wildlife and groundwater use and protection. Additional mitigation measures addressing drilling operations, water sourcing and drill hole abandonment were identified and incorporated into the EA. There is a broad range of opinion on how the Forest should be managed. Again, my decision facilitates only prospecting (exploration) activities within the permit area. It is not a mineral leasing or development (mining) proposal. In reviewing the comments received on the EA prior to making this decision, I have taken a hard look at several specific issues regarding this proposal including the purposes for which the National Forest System lands were acquired; impacts to wildlife; impacts and mitigation to protect surface and groundwater and the flow of navigable streams; recreational users; timber production; transportation; and local jobs.

I recognize the public concerns about effects to the Tumwater Inventoried Roadless Area. Portions of the inventoried roadless area overlap with both of the prospecting permit areas (Attachment 2). My consent decision includes the “Standard Stipulation for Lands of the NFS under the Jurisdiction of the Department of Agriculture” (Attachment 1, Condition 2) as required by the Forest Service Manual (FSM 2822.42). This condition requires a prospecting permittee to comply with all rules and regulations of the Secretary of Agriculture. The BLM prospecting permit form contains similar language as a standard term of the permit. My decision also includes a notice (Attachment 1, Notice 3) that clarifies the requirements of 36 CFR Part 294, Special Areas: Roadless Area Conservation; Final Rule, which implements the 2001 Roadless Area Conservation Rule.

I am also aware of public concerns about effects to the Green River, in particular its wild and scenic character. The Wild and Scenic Rivers Management Area category in the Gifford Pinchot Forest Plan is described as “lands within a quarter mile of designated rivers within the forest boundary appearing to be both eligible and suitable for addition to the National Wild and Scenic Rivers System. Also included are those eligible river corridors for which suitability has not yet been determined,” (forest plan, p. IV-108). The objective of this management area is to protect the “outstandingly remarkable values,” including scenery, recreation, geological and historical (mining), as well as the visual quality objective of partial retention, and recreation opportunity spectrum objective of roaded natural areas. In order to meet these objectives, standards and guidelines for minerals and geology activities within designated and potential wild and scenic rivers require that “approved plans will include reasonable mitigation and reclamation measures to minimize surface disturbance, sedimentation and visual impairment,” (forest plan, IV-111).
To address the public concern, as well as ensure consistency with the forest plan, my decision includes conditions that require specific operational designs for exploration activity that may be contemplated near the Green River (Attachment 1, Conditions 4 and 5).

I also recognize that there are concerns related to potential for future mining. The current actions before the federal agencies are related to prospecting permits that would facilitate only exploration activity. Following BLM’s regulatory process at 43 CFR 3500, the permittee must, among other conditions, demonstrate to BLM the discovery of a valuable mineral deposit in order to apply for a mineral lease, which could then potentially lead to mineral development. To that end, the Forest Service as the surface managing agency has the authority to determine whether to consent to issuance of such a lease, if one is applied for. To clarify this point, my decision includes a stipulation that ensures the Forest Service’s ability to review and consent to a lease on its own merits, should one be applied for; the Forest Service is under no obligation to consent to a future mineral lease (Attachment 1, Notice 1).

**OTHER ALTERNATIVES CONSIDERED**

**Proposed Action (Alternative 2)**

The proposed action assumed that the Forest Service would consent to the BLM issuing the prospecting permits with conditions for use and protection of NFS lands. Specified and recommended conditions of Forest Service consent under Alternative 2, along with recommended mitigation measures, were based in part on the applicant’s initial exploration plan. The initial exploration plan proposed using only on-site water for drilling, certain limited drill hole reclamation/abandonment procedures, and other factors that raised issues for the Forest Service, BLM, and the public. Based on these concerns, Alternative 3 was developed. Alternative 2 was not selected primarily because of concerns related to potential impacts to water and wildlife.

**Alternative Based on Scoping Comments (Alternative 3)**

Like Alternative 2, Alternative 3 assumed that the Forest Service would consent to the BLM issuing the prospecting permits with conditions for use and protection of National Forest System lands. This alternative also took into consideration scoping comments and provided alterations from the proposed action alternative with respect to the BLMs approval of the exploration plan including the following: changes in drilling and abandonment procedures; drilling fluid management to protect surface and groundwater resources; obtaining offsite water from regulated potable sources; periodically testing the quality of on-site water sources; prescribed uses for water maintained in an on-site storage tank; and the use of a portable drill shack to reduce noise and night-time light intrusion into the surrounding environment. Alternative 3 was not selected primarily because of concerns with proposed pads 6 and 7, which would be located in the riparian reserve. Drilling and exploration activities at these sites would be inconsistent with Aquatic Conservation Strategy objectives and guidelines that support the Gifford Pinchot Forest Plan as amended by the Northwest Forest Plan.

**No-Action Alternative (Alternative 1)**

Under the no-action alternative, the Forest Service would not have consented to issuance of the prospecting permits, and consequently, BLM would not issue them nor approve the initial exploration plan. As a result, no ground disturbing activities related to exploration or associated
activities would occur. The no-action alternative does not preclude future applications for mineral prospecting or leasing in the project area. I did not select this alternative because it does not meet the purpose and need for the action. It also does not meet the overall guidance of the forest plan to encourage and facilitate the orderly exploration, development, and production of mineral and energy resources within the National Forest System in order to maintain a viable, healthy minerals industry and to promote self-sufficiency in those mineral and energy resources necessary for economic growth and the national defense (forest plan, page IV-4).

Alternatives Considered but Eliminated from Detailed Analysis

The first alternative considered, but eliminated from further analysis, did provide for Forest Service consent but presented operational issues related to the use of overland travel to avoid reactivation of existing decommissioned roads. This alternative was rejected during the analysis because it would be physically impossible to traverse most of the project area without constructing new roads due to the steepness of the terrain and/or density of the forest.

The second alternative considered, but eliminated, also provided for Forest Service consent, and included that BLM would have approved an initial exploration plan with 25 drill pads. Pads 8 and 9 were eliminated from the proposed action because their installation would cause too much disturbance, including a substantial amount of grading and tree removal to gain access to the drill sites, and road use by supporting equipment. Ascot concurred with the revised plan during the permit application process.

The third alternative considered, but eliminated from further study, also provided for Forest Service consent. However, related to the BLM’s approval of the exploration plan, use of the existing Forest Service Road 2612 would have been limited to the current condition, rather than allowing road improvements and maintenance as needed. Such improvements and maintenance are proposed under the exploration plan to ensure the safety of project personnel and the traveling public. Additionally, this route is the primary access to the northeastern portion of the Goat Mountain area, including associated recreation. This alternative was eliminated as it would be infeasible due to safety concerns and would limit access to the drill sites needed to carry out the proposed exploratory drilling.

As a result of a public comment, the agencies took under consideration but eliminated, a fourth alternative to issue a prospecting permit for approximately 220 acres, specifically within Mineral Survey (MS)- 708 (BLM WAOR #66973). Public comment suggested that the agencies limit consent and permitting to this area where the United States and Ascot own an undivided 50 percent interest in the mineral estate. After evaluating the resource issues and concerns identified and documented in both the original 2012 EA and the 2015 EA, the agencies found that such an alternative neither specifically addresses nor resolves issues germane to the proposed action (EA, Section 2.1.5). Such an alternative, more or less in the middle of the project area, would result in mineral exploration on only about 24 percent of the acres within the proposed action and would reduce by approximately 50 percent, the number of drill pads proposed in the Exploration Plan evaluated in the EA. However, it provides no compelling environmental, legal or practical reason for limiting mineral exploration to only this parcel. In addition, restricting prospecting to this one area does not meet the intent of Congress as expressed in the Mining and Minerals Policy Act, 1970. Such limitations on prospecting and exploration of the possible mineral resources in this area, without any reasonable environmental justification, precludes the collection of geologic and
mineral information in this area. Therefore, the agencies eliminated this alternative from further analysis.

PUBLIC INVOLVEMENT

Public input on this project was useful in identifying concerns and mitigations to reduce conflicts amongst various uses of National Forest System lands. Managing the natural resources of the Gifford Pinchot National Forest requires complex integration of resource considerations. I have considered the potential impacts to natural resources and the human environment within the permit applications areas in making my decision.

Initial Scoping

The purpose of the public scoping process was to determine the nature and range of issues raised by the public to be addressed in the EA, including alternatives. Public scoping involved notification of the public, other agencies, organizations, and local and state governments. Government-to-government consultation was conducted with the Cowlitz Indian Tribe (see Tribal Consultation). In addition, three public meetings were held, including one each in Longview, Washington, on February 15, 2012; Morton, Washington, on February 16, 2012; and Stevenson, Washington, on March 13, 2012. Scoping helped refine issues, obtain Tribal and agency feedback on the preliminary issues, and to identify new issues and reasonable alternatives. A total of 189 comments were received during the scoping period of February and March 2012.

Because the proposed action is limited to issuing prospecting permits for specific lands that would facilitate exploration activities, concerns raised by some members of the public related to mine development are outside the scope of this EA. Approximately one-third of comments submitted during public scoping involved jobs and concerns for impacts to the environment, water quality, and recreation. About 90 percent of these comments noted that the project would bring needed employment and improve economic conditions to the area, while 10 percent noted that the project would not improve the job market. Approximately 10 percent of comments indicated concern that the project would negatively impact water quality, and about 10 percent were concerned about impacts to recreation (EA, Appendix C). Other subjects that were each mentioned in less than 10 percent of the comments included:

- Mineral activity will not interfere with the primary purposes for which the lands were acquired;
- Increased traffic as the result of trucking water to the site;
- Effects on compaction of soil;
- Bond requirements of the project proponent;
- Consistency with the Tumwater Inventoried Roadless Area;
- Consistency with the forest plan, as amended by the Northwest Forest Plan;
- Concern that exploration would result in a mine;
- Concern regarding Green River eligibility for Wild and Scenic River status.
Formal Public Comment Periods
The original 2012 EA was developed to evaluate alternative methods to address issues related to the exploration plan activities, while still meeting the purpose and need for the project and included stipulations to address other resource concerns. The BLM prepared the EA with the Forest Service participating as a cooperating agency. The Forest Service’s involvement at that stage included:

- Deciding whether to consent to the BLM issuing the prospecting permits, and specifying or recommending conditions to protect the primary purposes for which the lands were acquired;
- Evaluating whether consenting to the issuance of prospecting permits would interfere with the purposes for which the lands were acquired; and
- Recommending other project design features and measures for consistency with the forest plan and other applicable direction.

The original EA was released on June 29, 2012 for a 30-day official public comment period. This comment period was extended for another 15 days, ending on August 15, 2012. Over 6,000 comments were received, most similar to those received during earlier scoping as described above. Additional comments and concerns that were expressed include:

- Prospecting is not consistent with the primary purposes for the lands acquisition.
- The EA is not adequate to address impacts to ground water, recreation and wildlife.
- Lands were acquired with Land and Water Conservation Fund money which supports recreation and wildlife.

On November 30, 2012, Alternative 3 (Alternative Based on Scoping Comments), was developed by modifying Alternative 2 (Proposed Action Alternative), to respond to scoping comments and include design features for reducing potential impacts. The EA was modified again in December 2015 to address the 2014 Opinion and Order of the U.S. District Court of Oregon. Alternative 4 (Drill Site Riparian Reserve Avoidance Alternative), was developed to implement Northwest Forest Plan direction prohibiting new disturbance in the riparian reserves, as well as respond to the 2014 court ruling. The Forest Service clarified its consent authority, specified and recommended conditions for each alternative to protect National Forest System lands, and clarified the analysis to support the finding that the activities would not interfere with the primary purposes for which the lands were acquired. Additionally, modifications to the EA addressed the Court order to make an express determination if project activity would be inconsistent with the purpose of recreation on the 168 acres acquired under the Weeks Act authority using Land and Water Conservation Fund dollars.

The modified EA of December 2015 was sent out for a 30-day public comment period on January 5, 2016. Due to a delay in notifying interested parties of the 30-day comment period, a second 30-day comment period on the modified EA began on February 22, 2016. During that comment period, concerns raised primarily echoed those previously raised during scoping and comment periods, more specifically, comments raised concerns about impacts to fisheries, water quality, wildlife, recreation, visuals, soils and geology, along with concerns about drilling equipment and methodology, the legality of the project, the purposes for which the lands were
acquired, and the need for an environmental impact statement. Based on public comment, agency review, and recent Tribal consultation, the EA was updated and finalized on August 7, 2017. Agency responses to comments are included in the project record and the EA (Appendix C). I have reviewed and considered all comments submitted during both the scoping and comment periods prior to making this decision. The agencies have responded to those concerns by creating Alternative 4 - Drill Site Riparian Reserve Avoidance; and the Forest Service has provided specified and recommended conditions and notices necessary to protect National Forest System lands and uses.

The Forest Service decision was also subject to the pre-decisional administrative review process (objection process), as described later under “Administrative Review (Objection)”.

**Tribal Consultation**

Project notification and request for consultation was prepared and sent to the Confederated Tribes and Bands of the Yakama Indian Nation, the Cowlitz Indian Tribe, the Nisqually Indian Tribe, and the Squaxin Island Tribe. The Forest Service and BLM jointly initiated consultation with local tribes to gather input and concerns. Formal government-to-government consultation meetings were held between agency officials and the tribal chairman, tribal historic preservation officer, and the staff of the Cowlitz Indian Tribe on March 30, 2012, May 30, 2012, and August 28, 2012. A government-to-government meeting was also held on November 16, 2012, at which time the tribe was briefed on the revised EA prior to its release to the public. Government-to-government consultation with the Cowlitz Tribe also occurred on August 18, 2015, regarding further modifications to the EA, consistent with the 2014 court ruling.

Concerns expressed by the Cowlitz Indian Tribe throughout the planning process include, but are not limited to:

- The need for completion of cultural and archaeological resource surveys and the potential for geotechnical borings to have impacts on these resources.
- The need for known historic mining resources to be better characterized so that impacts can be avoided.
- The likely association of trails near the area of potential effect with pre-contact period Indian trails tied to resource gathering.
- The presence of wild goats at Goat Mountain, which were and are an important element of the Cowlitz Indian Tribe cultural heritage.
- The presence of berries and first foods as cultural resources and for which the Project Area would also have been utilized.
- The upper Green River fork of the Toutle River is considered a culturally significant landscape.
- The Washington State fish hatchery on the Green River and its importance for providing salmon and fish to Tribal members.
- Ensuring the tribe has a voice in identifying conditions for permits.
- The presence of two traditional cultural properties in the vicinity of the project area.
On July 10, 2017, formal government consultation occurred between agency officials and the Cowlitz Tribe. At that time, the tribe expressed concern that consenting to the prospecting permits would be a first step toward active mining in this important area. The Forest Service acknowledges and appreciates the tribe’s concern. I would like to clarify that the environmental analysis and resulting decisions for the prospecting permits do not preclude the agencies’ responsibilities under the National Environmental Policy Act to complete separate environmental analysis and decisions for future proposals in the area, including mineral leasing and development. Toward that end, this decision includes a stipulation that ensures the Forest Service’s authority to review and consent to a lease on its own merits, should one be applied for; and the Forest Service is under no obligation to consent to a future mineral lease (Attachment 1, Notice 1). Additionally, all interested tribes will be invited to review, consult and/or comment on any future proposals in the area.

**FINDING OF NO SIGNIFICANT IMPACT**

Based on the context and intensity of the impacts analyzed in the EA, my selection of Alternative 4 - Drill Site Riparian Reserve Avoidance as consent to the BLM to issue the two prospecting permits is not a major Federal action that would significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. Alternative 4 design features and best management practices, and Forest Service specified and recommended conditions, and notices will protect National Forest System resources and limit where and when the lands may be used for exploration activity. Foreseeable exploration activities in the prospecting permit areas will be constrained by resource issues and protection, consistent with the forest plan and other direction.

Potential impacts of the proposed project would be limited in context at all scales. The foreseeable exploration activity would disturb approximately 3.25 acres (0.36 percent) of the 900-acre permit area, 0.00056 percent of the 575,000-acre Cowlitz Valley Ranger District, and 0.00023 percent of the 1,368,300-acre Gifford Pinchot National Forest.

I considered the following intensity criteria, defined by the Council on Environmental Quality (40 CFR 1508.27(b)), for evaluating the intensity or severity of the impact of the Proposed Goat Mountain Hardrock Mineral Prospecting Permit Applications. My consent decision to allow BLM to issue two prospecting permits as described in Alternative 4, along with specific recommendations, conditions, and notices for use and protection of National Forest System lands will:

**1. Not result in significant beneficial or adverse effects.**

My consent to the BLM issuing prospecting permits for mineral exploration facilitates gathering additional information regarding the existence, grade and extent of federally managed sub-surface hardrock minerals within the permit areas (EA, Section 1.7). Specified and recommended conditions and notices included as part of my consent, such as a prohibition to occupy riparian reserves and the requirements to adjust the project’s operational design adjacent to the Green River eligible wild and scenic section, regulatory restrictions regarding road construction and reconstruction in the Tumwater Inventoried Roadless Area, along with project timing limitations in northern spotted owl habitat (EA, Section 3.5, 3.5.2.3), serve to reduce effects of exploration activity. The environmental effects of the projected disturbance on geology and mineral
resources (EA, Section 3.2) hydrology and hydrogeology (Section 3.3), soils (Section 3.4),
wildlife (Section 3.5), fisheries (Section 3.6), vegetation (Section 3.7), heritage and cultural
resources (Section 3.8), visual/scenic resources (Section 3.9), air quality (Section 3.10),
transportation and access (Section 3.11), recreation (Section 3.12), socioeconomics (Section
3.13) and noise (Section 3.14) are anticipated to be minimal or undetectable. Effects from
projected surface use would be temporary. All surface disturbance resulting from this project
would be reclaimed in accordance with prospecting permit terms, regulatory requirements and
the approved exploration plan (EA, Section 2.1.2.6, 2.1.3, 2.1.4 and others). BLM issues
prospecting permits for a limited duration of 2 years with the potential to extend the permit for 4
years if the permittee complies with BLM’s regulatory requirements.

2. Not result in significant impacts on public health or safety.
Prospecting permit terms and conditions along with BLM’s regulatory requirements would
reduce risk to public health and safety by temporarily limiting public access to drill sites;
housing drilling equipment; placing signage to control access and facilitate public safety; and
implementing measures to protect water resources. These provide reasonable protection of public
health and safety while maintaining existing access to public lands (EA, Section 2.1.2, 2.1.2.2,
and 3.3.2.4).

3. Have no significant, adverse effects on unique characteristics of the geographic area.
The EA identifies unique resources in proximity to the prospecting permit areas. These include
the Mount St. Helens National Volcanic Monument, a segment of the Green River determined to
be eligible for consideration under the Wild and Scenic Rivers Act, and the Tumwater
Inventoried Roadless Area. The prospecting permits do not include lands within the Monument,
nor are projected activities anticipated to be seen from within the Monument because the drill
mast will be screened by trees. Alternative 4 and conditions included as part of the Forest
Service consent provide protections for the Green River (Attachment 1, Conditions 4 and 5).
Roads, drill pads, and the 14-foot drill masts will not be visible from the Green River due to the
densely stocked, 20 foot tall and taller fir trees between the river and these sites, including pads 4
and 5, which are nearest the wild and scenic section (Attachment 2). Therefore, no significant
adverse effects are anticipated to this resource, and no outstandingly remarkable values (scenic,
geologic, historic and recreation) would be impacted (EA, Sections 3.8 and 3.12). Forest Service
Notice 3 (Attachment 1) and BLM standard permit terms ensure that regulations regarding
management of inventoried roadless areas are met, therefore no adverse effects are anticipated to
this resource (EA, Sections 1.3 and 1.5).

4. Not have highly controversial environmental effects.
“Highly controversial” in the context of 40 CFR 1508.27(b)(4) refers to substantial
disagreement within the scientific community about the environmental effects of the proposed
action. It does not refer to expressions of opposition or support, or to differences of opinion
concerning how public lands should be managed. Public scoping identified either a pro or against
opinion toward the project as well as substantial public interest in the project. However, it did not
identify substantial disagreement about the nature and extent of potential impacts in the context
of actual effects that would result from issuing the prospecting permits (EA, Appendix C; and
section 1.8).
5. **Not have highly uncertain and potentially significant environmental effects or unique or unknown environmental risks.**

The survey and analytical methodologies utilized by the agencies to describe the affected environment and environmental effects follow established practices. The EA did not identify any environmental effects or environmental risks that could not be described using available tools and methodologies. Consenting to BLM issuing prospecting permits that may result in on-the-ground exploration activity considers the resources on the ground, and potential effects to them from common methods used to determine subsurface geologic conditions; none of the projected methods are new or experimental. The Forest Service has experience managing similar processes and activities in this area and on other national forests across the country.

6. **Not establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.**

Processing these hardrock mineral prospecting permits has followed established procedures and agency roles and responsibilities defined in the applicable legal and regulatory framework (EA, Chapter 1). Mineral exploration has occurred in the area in previous years, and land management planning documents and information specific to the acquired lands have acknowledged the potential for minerals to occur in the area. This decision does not set a precedent for mineral exploration. With respect to future actions, the applicable regulatory process requires first demonstration of valuable mineral occurrence, application for leasing, and then consideration of specific development. Based on laws and regulations, the Forest Service has consent authority for leasing by the BLM of hardrock minerals on acquired National Forest System lands. Any future prospecting or leasing proposals would be evaluated on their own merits, and would be subject to separate and specific environmental analysis and public comment under the National Environmental Policy Act (EA, section 1.2). No leasing applications are pending within the project area at this time. As described in the EA (Section 3.1), future mining is not a *reasonably foreseeable future action* (see 36 CFR 220.3), therefore it is not evaluated in the environmental analysis.

7. **Not result in significant cumulative environmental effects.**

No other applications for new resource use proposals or authorizations are pending within the geographic area of the proposed permit or any other activities with similar or overlapping effects in space and time. A cumulative effects analysis evaluating overlapping effects from this project as well as projects with similar effects was included in the EA, and no significant cumulative environmental effects were identified. The EA discloses potential cumulative effects of Alternative 4 to geologic and mineral resources (Sections 3.2.2.4.3 and 3.2.2.2.3); hydrologic resources (Sections 3.3.2.4.3 and 3.3.2.3.3); soils (Sections 3.4.2.4.3 and 3.4.2.3.3); wildlife (Sections 3.5.2.4.2, 3.5.2.3.3, and 3.5.2.2.3); fisheries (Sections 3.6.2.4.3 and 3.6.2.2.3); vegetation (Sections 3.7.2.4.3 and 3.7.2.2.3); heritage and cultural resources (Sections 3.8.2.4.3 and 3.8.2.2.3); visual and scenic resources (Sections 3.9.2.4.3 and 3.9.2.2.3); air quality (Sections 3.10.2.4.3 and 3.10.2.2.3); transportation and access (Sections 3.11.2.4.3, 3.11.2.3.3 and 3.11.2.2.3); recreation (Sections 3.12.2.4.3 and 3.12.2.2.3); socioeconomics (Sections 3.13.2.4.3, 3.13.2.3.3 and 3.13.2.2.3); and noise (Sections 3.14.2.4.3 and 3.14.2.2.3).
8. Have no significant effects on scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places.

Standard terms on BLM’s prospecting permit form require protection of items of antiquity within the permit area. Conditions to be added to the permit include, among others, requirements for a discovery plan. The Gifford Pinchot National Forest, in consultation with several local Indian Tribes, has developed an Inadvertent Discovery Plan which is available upon request. Cultural resource surveys have not identified any cultural or historic resources in the areas where activities are proposed (EA, Section 3.8). Based on the environmental analysis, the decision is not expected to have significant effects on these resources.

9. Have no significant adverse effects on species listed or proposed to be listed as Federally Endangered or Threatened Species, or their designated critical habitat.

No significant adverse effects to threatened and endangered species or critical habitat are anticipated as a result of this decision. Pursuant to section 7 of the Endangered Species Act, informal consultation with the U.S. Fish and Wildlife Service was initiated on July 26, 2012. The Service provided written concurrence on August 21, 2012.

Of the federally listed species with potential to occur in Skamania County, only the northern spotted owl has the potential to occur in or near the action area. This consent decision includes a recommended condition that would restrict operations within the prospecting permit areas where spotted owl habitat may exist. Impacts to northern spotted owls are addressed in the project-specific Biological Assessment (EA, Appendix F) and summarized here.

In their letter of August 21, 2012, the U. S. Fish and Wildlife Service concurred that the project may affect but is not likely to adversely affect the northern spotted owl. The prospecting permit areas do not contain designated critical habitat for the northern spotted owl, therefore the project will have no effect on designated critical habitat for this or any other species. Suitable habitat (436 ac) for the northern spotted owl occurs in the late successional old growth forest stands of the northern, higher elevations of the permit areas. Specifically, drill pads 10, 11, 12, 13, 22, 23, 24, and 25 are located within or near northern spotted owl suitable habitat including nesting, roosting, and foraging habitats (Attachment 2). Surface disturbance (drilling activities, road clearing or reactivation, and vegetation removal) at these locations is prohibited between March 1 and July 15, the nesting season. For activities occurring outside of the nesting season, no mature trees (greater than a 12-inches diameter at breast height) would be removed; therefore, the suitability of the habitat would be unchanged (Attachment 1, Condition 6; EA, Appendix F; EA, Section 3.5.2.3.1).

As described in the biological assessment (EA, Appendix F), listed fish species including bull trout, lower Columbia River Chinook salmon, lower Columbia River Coho salmon and lower Columbia River steelhead are precluded from occurring in the action area due to downstream fish barriers on the Green River near river mile 25. The distance between the North Toutle Hatchery and the project area is approximately 26 river miles. Other listed species including Canada lynx, grizzly bear, gray wolf, Oregon spotted frog, yellow-billed cuckoo, and whitebark pine do not occur in the action area. Therefore, the project would have no effect to any of these species.
10. Not violate a Federal, State, local, or Tribal law, regulation or policy imposed for the protection of the environment.

The action is in conformance with multiple management objectives and decisions of the Gifford Pinchot Forest Plan, and other applicable laws, regulations, and policies (EA, Section 1.3). Specific decisions include those from:

- **Gifford Pinchot National Forest Land and Resource Management Plan**, 1990. Management area categories in the larger permitted area include: unroaded recreation; visual emphasis (Visual Quality Objectives); and (nominated) Wild and Scenic Rivers (Green River).

- **The 1994 Northwest Forest Plan**. In 1994, the Gifford Pinchot Forest Plan was amended by the Northwest Forest Plan with the completion of a comprehensive and long-term policy for the management of Forest Service and BLM lands within the range of the northern spotted owl.

- **The 1994 Northwest Forest Plan and Aquatic Conservation Strategy Objectives**, requires that proposed projects on Federal lands must be consistent with Aquatic Conservation Strategy objectives. Conditions have been included consistent with these objectives.

- **The 1994 Northwest Forest Plan standards and guidelines for riparian reserves.** The decision includes conditions consistent with riparian reserves.

- **Gifford Pinchot National Forest Land and Resource Management Plan Management Indicator Species List.**

- **Gifford Pinchot National Forest Survey and Manage Species List.** See EA Section 3.5.1.3

- Forest Service **Sensitive Species** (2011). USFS Special Status Plant Species data in the project area. Forest Service Region 6 Regional Forester Special Status Species List (2011). Includes Region 6 Regional Forester Sensitive Species List. A review of the project in light of the 2015 sensitive species was conducted and the analysis is in the project file. Also, Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376).

**SUMMARY**

I have determined that consenting to the BLM issuing the Goat Mountain Hardrock Mineral Prospecting Permits does not constitute a major Federal action having a significant effect on the human environment, and that an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR § 1508.27(b)), with regard to impacts described in the EA, my understanding of the project, review of project analysis, and review of public comments. The analysis of effects documented in the EA has been completed within the context of multiple spatial and temporal scales and within the context of the forest plan and the specific plans and program guidance listed above.
FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

National Forest Management Act
The National Forest Management Act (1976) requires each National Forest to develop and implement a forest plan which prescribes management activities for the lands within that National Forest. In 1990, the Gifford Pinchot National Forest published its first Land and Resource Management Plan (forest plan). The forest plan has been amended several times since 1990 and pertinent amendments are discussed below.

This decision is tiered to the Final Environmental Impact Statement for the Gifford Pinchot National Forest Land and Resource Management Plan (1990) and is consistent with the forest plan, as amended. The project was designed in conformance with the forest plan management area categories goals and standards and guidelines (EA, Section 1.3).

There will be no adverse impacts to Forest Service Region 6 sensitive species. Direct impacts to wildlife resulting from the proposed project action is expected to be minor due to the temporary duration of prospecting permits and potential activity on the lands within them (2 to 6 years) (EA, section 3.5.2) along with the application of conditions to the permit. No sensitive fish species are known to occur in the area (EA, Section 3.6.2). Direct or indirect effects to special status plant species are not anticipated from the projected activities (EA, Section 3.7.2).

I have considered the effects to management indicator species. Management indicator species that have the potential to occur in or near the project area include pine marten, Roosevelt elk, black-tailed deer, mountain goat, Van Dyke’s salamander, pileated woodpecker, tree cavity excavating birds, and cutthroat trout. Direct impacts to these species from the project are expected to be minor due to the temporary duration of the proposed action and the implementation of the permit conditions (EA, Sections 3.5.2.4, and 3.6.2.4). Projected or future activities within the prospecting permit areas have the possibility of affecting the estimated 2.4 miles of cutthroat and steelhead habitat; however, these effects are expected to be short-term, localized, intermittent, and below background levels at the sub-basin scale. Conditions identified as part of the consent decision further reduce the potential impacts (Attachment 1, Conditions 4 and 5; EA, Sections 3.6.2.3 and 3.6.2.4).

The project is consistent with the Aquatic Conservation Strategy objectives. A complete Aquatic Conservation Strategy evaluation that includes a description of the existing condition, important physical and biological components of the watersheds within the planning area, and how the action maintains the existing condition or moves it within the range of natural variability was included in the EA (EA, Sections 3.3.3 and 3.3.3.1). The project is consistent with standards and guidelines for Riparian Reserves. All activities will avoid direct drilling within mapped surface waters. The direct effects on surface waters, riparian habitat, stream distribution, water temperature, flow regimes, wetland potential, and floodplains would be minor and negligible and the magnitude of effects would be reduced by preventing surface occupancy and exploration within the riparian reserve.

Preventing new surface disturbance within the riparian reserve would eliminate potential erosion from the installation of access roads, pad construction, and other disturbance associated with drill pad operations, and would reduce overall disturbance (Attachment 1, Condition 5; EA, Section
3.3.2.4.1). As a result of that analysis, I find that the project “meets” and “does not prevent attainment of” the Aquatic Conservation Strategy objectives.

**Clean Water Act**

I find all applicable state and federal requirements associated with state water quality laws and the Clean Water Act will be met through planning, application, monitoring and adjustment of best management practices in conformance with the Clean Water Act and Federal guidance and management direction (EA, Sections 1.3 and 3.3).

A Ground Water Resources Report was conducted and included as part of the analysis (EA, Appendix G). The purpose of the scope of work was to collect baseline geologic and water-related data in response to the Court Opinion and Order; Gifford Pinchot Task Force v. Perez et al. dated July 3, 2014. The report details the mapping of the geology and the collection of baseline water-related data. The baseline data in the report supports the technical analyses included in the EA.

**Clean Air Act**

An assessment of air quality was included in the EA, and I find that all applicable state and federal requirements associated with the Clean Air Act will be met through BLM standards permit terms and regulations, planning, application, monitoring, and adjustment of minimization measures (EA, Section 3.10).

**Mineral Resources on Weeks Act Lands, and the Reorganization Plan No. 3 of 1946**

The lands within the prospecting permit applications were acquired under authority of the Weeks Act of 1911. The Mineral Resources on Weeks Act Lands (1917) established that the Secretary of Agriculture could authorize mineral prospecting on lands acquired under the Weeks Act (1911). The functions of the Secretary of Agriculture under this Act were transferred to the Secretary of Interior in the Reorganization Plan No. 3 of 1946, which set forth that the Secretary of Interior could only authorize mineral development when advised by the Department of Agriculture that such activity will not interfere with the primary purposes for which the lands were acquired. In accordance with the forest plan, National Forest System lands within the proposed permit areas are open for mineral activity.

As described earlier, the BLM has responsibility for management of the federal mineral estate, as well as the obligation to implement regulations for public domain minerals available and subject to prospecting and exploration (43 CFR 3505). Where National Forest System lands are involved, the BLM must first obtain the consent of the Forest Service in order to grant the prospecting permits. The BLM and Forest Service worked cooperatively to evaluate the project area and environmental impacts associated with the proposed action consistent with the National Environmental Policy Act and its implementing regulations. The BLM prepared the environmental analysis based on Ascot’s two prospecting permit applications, their proposed Exploration Plan, and comments from public scoping. The Forest Service participated as a cooperating agency throughout the process. The conditions described in Attachment 1 were designed for the protection of resources and will be required along with existing regulatory requirements and standard permit terms, including reclamation of exploration activities.

I find that consenting to issuance of these prospecting permits will not interfere or be inconsistent with the primary purposes for which these lands were acquired under the Weeks Act.
Act. This finding is supported by the analysis in Chapter 3 of the EA, which discloses that the impacts from projected short-term prospecting activities would be limited through the effective application of specified or recommended conditions and notices (Attachment 1), and the limited overall scope of proposed activities. Lands within the project area are within the blast zone of the 1980 eruption of Mt. St. Helens and under the matrix lands designation in the Northwest Forest Plan. They are available for timber harvest. Reclamation of any disturbed lands within the prospecting permit areas would be designed to return lands to a forested condition. Conditions of my consent that restrict activities in riparian reserves and the eligible wild and scenic section of the Green River preserve the watershed-related purpose of the Weeks Act (Attachment 1, Conditions 4 and 5). Further, the EA discloses that the impact on navigable streams and waters would also be limited through the mitigation measures to meet Aquatic Conservation Strategy Objectives (Table 3.3.1); limited withdrawal of surface waters (EA, Section 3.3); and final plugging of all drill holes that will prevent intermingling of any groundwater aquifers and prevent inadvertent communication of surface water to groundwater aquifers (EA, Section 2.1.2.4).

Within MS-1329 and MS-1330 of the acquired National Forest System lands, 168 acres were acquired with funds provided by the Land and Water Conservation Fund established by Congress in 1964 (EA, Appendix A, Figure 4). Lands acquired using Land and Water Conservation funds are “primarily of value for outdoor recreation purposes” (16 U.S.C. 460l-9(a)(1)(b). In its order, the U.S. District Court of Oregon directed the Forest Service to make an express determination on whether the proposed action would be inconsistent with the purpose of outdoor recreation. Based on the EA (Section 3.12), none of the action alternatives would be inconsistent with the purpose of outdoor recreation; and the selected alternative, Alternative 4 would have the least impact (EA, Section 3.14.2.4). By including a condition of consent that prohibits new surface disturbance in riparian reserves, which eliminates pads 6 and 7; and requiring other conditions, no direct effects to visual and scenic resources associated with campsites in the vicinity of the Green River Horse Camp (a primary recreation area), or direct effects to the recreational experience associated with the use at the horse camp (EA, sections 3.9, 3.12, and 3.14) are expected. Based on conditions of my consent, and considering the limited scope and temporary nature of activities and their anticipated effects, I find that the action is not inconsistent with the purpose of outdoor recreation.

**Mining and Minerals Policy Act of 1970**

This legislation established the Federal Government’s overall policy to foster and encourage private enterprise in the development of economically sound and stable industries. The Act identified the need for the orderly and economic development of domestic resources to help assure satisfaction of industrial, security, and environmental needs. As discussed under Decision Rationale, my decision is consistent with this Act.

**Administrative Review (Objection)**

This decision was subject to a pre-decisional administrative review process (objection process) pursuant to 36 CFR Part 218. A 45-day opportunity to object to the Forest Service’s draft decision began on August 25, 2017 following publication of the legal notice, and ended on October 10, 2017. Responses to objections were issued by the Objection Reviewing Officer on December 13, 2017. During the objection filing period, over 200 objections were received, many
of which were form letters or brief statements opposing the project and submitted by people who had not participated in scoping or other comment periods and as such, were determined to be ineligible objectors. In total, there were 32 eligible objectors, many of whom raised the same issues as the ineligible objectors.

During the objection review process, the Objection Reviewing Officer noted that there were areas where this decision could be clearer, including, but not limited to, consideration of public comments; the difference between specified and recommended conditions and notices; and discussion of effects to riparian reserves, fisheries, wild and scenic river values, recreation, and other resources. The Objection Reviewing Officer’s instructions were incorporated in this decision.

**IMPLEMENTATION DATE**

I have addressed all concerns and instructions identified by the Reviewing Officer, in accordance with the regulation at 36 CFR 218.12(b). My decision is effective on the date this decision notice is signed, and will be implemented by notifying the BLM via formal letter detailing Forest Service consent along with specified and recommended conditions, and notices for the prospecting permits.

**CONTACT**

For additional information concerning this decision, contact: Charlie Sharp, Environmental Coordinator, during business hours (weekdays, 8:00 a.m. to 4:30 p.m. MST) at (970) 403-6174; or charlesmsharp@fs.fed.us.

\[Signature\]  
GAR ABBAS  
Cowlitz Valley District Ranger  
01/29/2018  
Date
In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

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ATTACHMENT 1

Federal Hardrock Minerals Prospecting Permits
Forest Service Decision Notice

FOREST SERVICE SPECIFIED CONDITIONS, RECOMMENDATIONS, AND NOTICES

Following are specified conditions, recommendations, and notices of Forest Service consent to BLM issuing prospecting permits described in applications WAOR-066628 and WAOR-066973. These are conditions to be added to the permits by the BLM and implemented by the permittee. Also included are specified conditions from the EA, Appendix E- Best Management Practices.

1. NOTICE - Pursuant to the provisions of the act of March 4, 1917 (16 USC 520), Section 402 of the Re-organization Plan No. 3 of July 16, 1946 (60 Stat. 1097, 1099), the Act of August 7, 1947 (30 USC 352), and the National Environmental Policy Act of 1969 (42 USC 4321 et seq.) as said authorities have been or may hereafter be amended, no mineral development of any type is authorized hereby, and consent to the issuance of this prospecting permit as required by law and regulation (43 CFR 3507.11 (d)) and 43 CFR 3507.19(c)) is given subject to the express stipulation that no mineral lease may be issued for the land under permit without the prior consent of the USDA Forest Service and the proper rendition of an environmental analysis in accordance with the National Environmental Policy Act of 1969, the findings of which shall determine whether and under what terms and conditions for the protection of the land involved the lease may be issued.

2. CONDITION - Standard Stipulation for Lands of the NFS under the Jurisdiction of the Department of Agriculture (FSM 2822.42): The permittee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the prospecting permit. The Secretary of Agriculture's rules and regulations must be complied with for: (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior; (2) uses of all existing improvements, such as forest development roads, within and outside the area permitted by the Secretary of the Interior; and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior. All matters related to this stipulation are to be addressed to Cowlitz Valley Ranger District at: 10024 US Highway 12, P.O. Box 670. Randle, WA 98377-9105, 360-497-1100.

3. NOTICE - Lands within the permit area in the Tumwater Inventoried Roadless Area (IRA), specifically Northern portions of BLM WAOR 66628 (Attachment 2) are subject to the rules and regulations of the Secretary of Agriculture pertaining to road construction, reconstruction and timber harvest consistent with the 2001 Forest Service Roadless Rule at 36 CFR 294. No ground-disturbing or vegetation-altering activities shall be authorized in the inventoried roadless area without additional prior written consent for specific activities from the Forest Service.
4. CONDITION for WAOR 66628 - Within 0.25 mile of the wild and scenic eligible section of the Green River (Attachment 2), mitigation and reclamation measures to minimize surface disturbance, sedimentation and visual impairment are required.

5. CONDITION - No new surface occupancy is allowed in Riparian Reserves (Attachment 2). This condition applies to both proposed (i.e., pads 6 and 7) and future activities.

6. CONDITION - To avoid potential noise-related disturbance to northern spotted owls during the nesting season, surface disturbing activities (drilling activities, road clearing or reactivation, vegetation removal) shall not occur at Pads 10, 11, 12, 13, 22, 23, 24 and 25 between March 1 and July 15 (Attachment 2).

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<tr>
<th>BMP</th>
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<tr>
<td><strong>Air Quality</strong></td>
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<tr>
<td><strong>BMP-1</strong></td>
<td>To reduce impacts, excavated materials from sump construction would be visually monitored for wind and water erosion. If needed, the piles would be covered to prevent material loss. The proposed work area generally receives enough rainfall to keep dust levels low along the unimproved roads. If visual dust is observed during road travel, a water truck would be used to reduce dust emissions during heavy traffic. Prompt site reclamation following drilling activities would also result in a reduction of windblown material.</td>
<td>3.10</td>
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<tr>
<td><strong>Cultural Resources</strong></td>
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<tr>
<td><strong>BMP-2</strong></td>
<td>All project employees would be instructed regarding the type and nature of archaeological and cultural features that might be encountered during project construction, including the proper steps for protecting and reporting such features before further ground disturbing activities are undertaken.</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>BMP-3</strong></td>
<td>Ascot and its agents would be required to adhere to protocol outlined in an Inadvertent Discovery Plan, which details actions to be followed by Ascot and its agents in the unlikely event unanticipated cultural resources or human remains are encountered during implementation of the Project. Ascot would be advised of state and federal regulations and laws protecting cultural resources and human remains, both orally and as documented in the Inadvertent Discovery Plan, which would be developed by the USFS GPNF archaeologist, who would be responsible for ensuring that the plan is adhered to throughout the duration of the Project. Should any cultural resources or human remains be encountered, further ground disturbing activities would be curtailed until the site has been properly investigated and cleared.</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>BMP-4</strong></td>
<td>In the case that a designated member of an associated Tribe(s) requests to monitor the Project Site during drilling, this activity would be included as a permit condition and coordinated through the BLM/USFS. The designated tribal member would adhere to all on-site safety measures.</td>
<td>3.8</td>
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<tr>
<td>BMP-5</td>
<td>All applicable Min-2. Minerals Exploration BMPs would be implemented (USFS National Core BMPs 2012).</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-6</td>
<td>A BLM approved Spill Prevention Control and Countermeasures (SPCC) plan would be developed before operations begin and carried wherever project activities occur. The containment plan should include but not be limited to possessing a spill containment kit on-site and having pre-identified containment locations. A spill containment kit would be located where equipment is stored or operated. Equipment would be scrubbed so it is free of external petroleum-based products and invasive plant seeds or biomass. Hydraulic/oil/fuel leaks would be repaired prior to operating on National Forest System lands. Equipment would be checked daily for leaks and any necessary repairs would be completed prior to commencing work activities along the stream. Equipment storage locations would be approved by the Project administrator. Equipment would not be stored adjacent to or in stream channels when not in use, which would avoid potential effects of vandals, accidents, or natural disasters. Any accidental spills of a hazardous material (e.g., oil, fuel, transmission fluid) from any operating equipment or in place of storage on land or in water would be reported to GPNF personnel.</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-7</td>
<td>Service and refueling areas would be located at least 100 feet from stream courses or wet areas (including chainsaws and other hand powered tools).</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-8</td>
<td>Road segments treated within riparian areas would be re-contoured to mimic natural floodplain contours and gradient to the greatest degree possible.</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-9</td>
<td>Sediment control barriers would be installed between the Project and the stream for those road segments immediately adjacent to the stream or where the road fill is near the wetted stream.</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-10</td>
<td>Drainage features (drain dips) would be spaced to hydrologically disconnect road surface runoff from stream channels.</td>
<td>3.6</td>
</tr>
<tr>
<td>BMP-11</td>
<td>Excavated waste material would be disposed of in stable locations out of the flood-prone area. Waste material other than hardened surface material may be used to restore natural or near-natural contours.</td>
<td>3.6</td>
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<tr>
<td>BMP-12</td>
<td>Disturbance of existing vegetation in ditches and at stream crossings would be minimized to the greatest extent possible.</td>
<td>3.6</td>
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<tr>
<td>BMP-13</td>
<td>Activities would be conducted during dry-field conditions with low to moderate soil moisture levels.</td>
<td>3.6</td>
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<tr>
<td>BMP-14</td>
<td>Project activities would restore natural drainage patterns (e.g., channel geometry, substrate and flow) and when possible promote passage of all fish species and life stages present in the area.</td>
<td>3.6</td>
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<tr>
<td>BMP-15</td>
<td>All applicable NWFP S&amp;Gs would be followed, as well as applicable administrative unit BMPs and Washington State findings and recommendations, (Washington State Hydraulic Codes).</td>
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<tr>
<td>BMP-16</td>
<td>Road stabilization and decommissioning would retain LWM typically accumulated on culvert structures and channel margins. Material would be repositioned on-site or integrated into stream restoration projects as identified by a USFS Fish Biologist to the benefit of aquatic species.</td>
<td>3.6</td>
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<tr>
<td>BMP-17</td>
<td>Rip-rap or other hard structures used in culvert protection, (e.g., rock armoring at the inlet and outlet of the culvert), would be removed on decommissioned crossings at all unnamed creeks.</td>
<td>3.6</td>
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<tr>
<td>BMP-18</td>
<td>Any stream bank stabilization deemed necessary following culvert removal would use bioengineered solutions, (such as root wads, log toes, coir logs, woody and herbaceous plantings).</td>
<td>3.6</td>
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<tr>
<td>BMP-19</td>
<td>Effective and appropriate erosion controls would be used as necessary to ensure that the likelihood of sediment delivery to streams or other water bodies is negligible.</td>
<td>3.6</td>
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<tr>
<td>BMP-20</td>
<td>Long-term impacts to soil, water quality and riparian resources would be minimized to the extent permitted by the geologic target when selecting locations for exploration activities.</td>
<td>3.2</td>
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<tr>
<td>BMP-21</td>
<td>Water bodies, sensitive areas, unstable slopes and highly erosive soils would be avoided to the extent practicable.</td>
<td>3.2</td>
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<tr>
<td>BMP-22</td>
<td>Clearing, excavation and other surface disturbing activities would be limited to the minimum necessary for exploration needs.</td>
<td>3.2</td>
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<tr>
<td>BMP-23</td>
<td>All new roads and drilling pads would be constructed to a safe and appropriate standard, “no higher than necessary” to accommodate their intended use (see BMP Road-2 (Road Location and Design), BMP Road-3 (Road Construction and Maintenance) and BMP Road-4 (Road Operations and Maintenance)).</td>
<td>3.2</td>
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<tr>
<td>BMP-24</td>
<td>Suitable design and construction practices would be employed to avoid, minimize, or mitigate surface disturbances as well as maintain the reclamation potential of the site.</td>
<td>3.2</td>
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<tr>
<td>BMP-25</td>
<td>Directional drilling techniques would be used when practicable to avoid or reduce surface disturbance.</td>
<td>3.2</td>
</tr>
<tr>
<td>BMP-26</td>
<td>The extent of open exploratory areas at one time would be limited and one site would be restored before moving on to the next one, to the extent practicable.</td>
<td>3.2</td>
</tr>
<tr>
<td>BMP-27</td>
<td>Applicable practices from BMP Fac-2 (Facility Construction) would be implemented to minimize erosion and stormwater discharge from ground disturbance at exploration sites.</td>
<td>3.2</td>
</tr>
<tr>
<td>BMP-28</td>
<td>Applicable practices of Chemical Use Management Activities BMPs would be implemented when chemicals are used in exploration activities.</td>
<td>3.2</td>
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7 Forest Service Manual BMPs for Minerals Exploration (Ref. FSM 2810, 2820, and 2850).
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<tr>
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<tr>
<td>BMP-29</td>
<td>Applicable practices of BMP Fac-6 (Hazardous Materials) would be implemented to manage petroleum products and other hazardous materials used in exploration activities.</td>
<td>3.2</td>
</tr>
<tr>
<td>BMP-30</td>
<td>Applicable practices from BMP Min-2 (Mineral Exploration) would be implemented to properly manage all exploration-related wastes, including drilling fluids, produced water and potentially acid-generating rock materials, to minimize the risk of groundwater and surface water contamination and to meet state and federal requirements.</td>
<td>3.2</td>
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<tr>
<td>BMP-31</td>
<td>Applicable practices of BMP Min-6 (Ore Stockpiles, Mine Waste Storage and disposal, Reserve Pits and Settling Ponds) and BMP Min-8 (Produced Water) would be implemented.</td>
<td>3.2</td>
</tr>
<tr>
<td>BMP-32</td>
<td>Applicable practices of BMP Min-8 (Minerals Site Reclamation) would be implemented to reclaim the project site concurrent with exploration activities.</td>
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**Hydrology/Hydrogeology**

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<tr>
<td>BMP-33</td>
<td>Guideline-1. Adverse effects to aquatic and other riparian dependent resources from mineral operations should be minimized or avoided. For operations in a riparian management area, ensure operators take all practicable measures to maintain, protect, and rehabilitate water quality, and habitat for fish and wildlife and other riparian dependent resources which may be affected by the operations.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-34</td>
<td>Guideline-2. Structures and support facilities should be located outside Riparian Reserves. Where no alternative to siting facilities in Riparian Reserves exists, locate them in a way to minimize adverse effects to aquatic and other riparian dependent resources. Existing roads should be maintained to minimize damage to aquatic and riparian dependent resources in the Riparian Reserves.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-35</td>
<td>Guideline-4. Where possible, adjust the operating plans for existing activities to minimize adverse effects to aquatic and riparian dependent resources in the Riparian Reserves.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-36</td>
<td>Guideline RF-1. (RF-Road Management from Standard and Guidelines in Forest Plan) Generally avoid new road construction in Riparian Reserves, except where necessary for stream crossings.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-37</td>
<td>Standard RF-2. Avoid side-casting (placement of unconsolidated earthen waste materials resulting from road and drill site construction or maintenance) in Riparian Reserves.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-38</td>
<td>Standard RF-3. Avoid placing fill material on organic debris in Riparian Reserves.</td>
<td>3.3</td>
</tr>
</tbody>
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8 Aquatic Conservation Strategy (ACS) Objectives. Forest Service National Core Best Management Practices (BMPs) for Water Quality Management in Minerals Management Activities (USFS 2012); minerals and road management standards and guidelines established for riparian reserves in the Gifford Pinchot Forest Plan
<table>
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<tr>
<td>BMP-39</td>
<td>Standard RF-4. Minimize or avoid disruption of natural hydrologic flow paths, including diversion of stream flow and interception of surface and subsurface flow when constructing or reconstructing roads or landings either inside or outside of Riparian Reserves.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-40</td>
<td>Guideline RF-5. Wetlands and unstable areas should be avoided when reconstructing existing roads or constructing new roads and landings. Minimize impacts where avoidance is not practical.</td>
<td>3.3</td>
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<tr>
<td>BMP-41</td>
<td>Standard RF-6. New or replaced permanent stream crossings will accommodate at least the 100-year flood, including associated bedload and debris.</td>
<td>3.3</td>
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<tr>
<td>BMP-42</td>
<td>Standard RF-7. Where physically feasible, construction or reconstruction of stream crossings will avoid diversion of stream flow out of the channel and down the road in the event of crossing failure.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-43</td>
<td>Standard RF-8. In fish bearing streams, construction or reconstruction of stream crossings will provide and maintain passage for all fish species and all life stages of fish.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-44</td>
<td>Guideline RF-9. Construction or reconstruction of stream crossings should allow passage for other riparian dependent species where connectivity has been identified as an issue.</td>
<td>3.3</td>
</tr>
<tr>
<td>BMP-45</td>
<td>Guideline RF-11. Generally minimize hydrologic connectivity and delivery from roads. This includes roads inside and outside of Riparian Reserves.</td>
<td>3.3</td>
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<tr>
<td>BMP-46</td>
<td>Guideline RF-12. Road drainage should be routed away from potentially unstable channels, fills, and hill slopes. This applies both inside and outside of Riparian Reserves.</td>
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Standards and Guidelines: 1994 Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl

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| BMP-47 | RF-2. For each existing or planned road, meet Aquatic Conservation Strategy objectives by:  
  a) Minimizing road and landing locations in Riparian Reserves.  
  b) Completing watershed analyses (including appropriate geotechnical analyses) prior to construction of new roads or landings in Riparian Reserves.  
  c) Preparing road design criteria, elements, and standards that govern construction and reconstruction.  
  d) Preparing operation and maintenance criteria that govern road operation, maintenance, and management.  
  e) Minimizing disruption of natural hydrologic flow paths, including diversion of stream flow and interception of surface and subsurface flow.  
  f) Restricting sidecasting as necessary to prevent the introduction of sediment to streams.  
Avoiding wetlands entirely when constructing new roads. | 3.3        |
| BMP-48 | RF-4. New culverts, bridges and other stream crossings shall be constructed, and existing culverts, bridges and other stream crossings determined to pose a substantial risk to riparian conditions will be improved, to accommodate at least the 100-year flood, including associated bedload and debris. Priority for upgrading will be based on the potential impact and the ecological value of the riparian resources affected. Crossings will be constructed and maintained to prevent diversion of stream flow out of the channel and down the road in the event of crossing failure. | 3.3        |
| BMP-49 | RF-5. Minimize sediment delivery to streams from roads. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe. Route road drainage away from potentially unstable channels, fills, and hillslopes. | 3.3        |
| BMP-50 | RF-6. Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.                                                                                                                                                                                                                                                                                                                                                              | 3.3        |
| BMP-51 | RF-7. To meet the Aquatic Conservation Objectives. The contractor shall provide:  
  a) Inspections and maintenance during storm events.  
  b) Inspections and maintenance after storm events.  
  c) Road operation and maintenance, giving high priority to identifying and correcting road drainage problems that contribute to degrading riparian resources.  
Traffic regulation during wet periods to prevent damage to riparian resources. | 3.3        |
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<tr>
<td>BMP-52</td>
<td>To maintain water quality and to reduce the amount of water needed during drilling the following measures would be followed:</td>
<td>3.3</td>
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<td>a) Only NSF/ANSI Standard 60-2003 Certified drilling fluid additives and bentonite grouts may be used during drilling.</td>
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<td>b) Water bearing zones and open formations encountered during drilling would be sealed, using approved drilling fluids and/or bentonite grouts, during drilling to allow for the recirculation of drilling fluids to the maximum extent possible. If loss of circulation is encountered during drilling, the portion of the formation causing the loss would be sealed prior to continued drilling, and the drill hole will be abandoned if circulation cannot be re-established.</td>
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<td></td>
<td>c) Drilling fluids would be reused to the extent possible. Appropriately sizes sumps lined with an impermeable liner and/or tanks would be used to contain drill fluids. Spent drilling fluids would be treated according to the Proposed Action Alternative 2.</td>
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<td>Daily on-site water use would be recorded using a totalizing flow meter.</td>
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<td>Following the completion of each drill hole, the drill holes would be grouted and sealed to prevent the flow of water within, into, or around the abandoned drill hole. Sealing would include a ten-foot cement surface plug placed within the top twenty feet of each drill hole to help ensure an adequate surface seal. Portland concrete cement mixed with clean water and aggregates, or bagged cement mixed with clean water, would be used for the surface plug. The top of the surface plug would be completed one to two feet lower than the post-reclamation surface of the drill pad to prevent future trip hazards and address aesthetic concerns. Alternate drill hole abandonment/sealing methods and materials would be considered for prior approval. Alternate abandonment methods would include drill-string tremie placement of sealing materials and use of high-solids bentonite grout and/or bentonite/cement mixtures such as described in Washington State Minimum Standards for Construction and Maintenance of Wells (WAC 173-160). Drilling fluid additives would be required to meet NSF/ANSI 60-2003 standards, or as approved by the agencies. These products protect the environment should drill holes encounter permeable zones and groundwater systems.</td>
<td>3.3</td>
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<tr>
<td>BMP-53</td>
<td>Baffles or other noise reduction techniques around the drill rigs would be used for intrusive noise reduction during drilling activity.</td>
<td>3.14</td>
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<tr>
<td>BMP-54</td>
<td>Recreational access to GRHC (Green River Horse Camp) and Trails 213 and 217 would be maintained.</td>
<td>3.12</td>
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<tr>
<td>BMP-55</td>
<td>Drilling operations would be sequenced to reduce impacts during high recreational use periods.</td>
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<tr>
<td>BMP-57</td>
<td>Signage and notices to alert users of the project area would be posted to facilitate public safety.</td>
<td>3.12</td>
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<tr>
<td>BMP-58</td>
<td>Public access to areas that are hazardous to public safety and health concerns would be controlled, especially immediately around drilling, drill pads, sumps, and access roads.</td>
<td>3.12</td>
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<td></td>
<td><strong>Soils</strong></td>
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<tr>
<td>BMP-59</td>
<td>Erosion of soils would be minimized by BMPs such as silt fences, mulch on roads, culverts and water bars, and adherence to all practicable sedimentation controls consistent with applicable erosion control measures and BMPs, including such additional mitigation measures subject to the authorizing Agencies’ discretion.</td>
<td>3.4</td>
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<td><strong>Transportation</strong></td>
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<tr>
<td>BMP-60</td>
<td>As required by MSHA, drilling personnel would be required to drive defensively, maintain posted speed limits, and give the right-of-way to the travelling public by using turnouts whenever possible. Practice of defensive driving and obeying speed limits would be expected to reduce the chance of collisions with both the public and wildlife. These safe driving techniques would extend to water truck operators.</td>
<td>3.11</td>
</tr>
<tr>
<td>BMP-61</td>
<td>Drilling would not occur directly within the road, except along those segments currently closed, but temporarily reactivated for this project. A gate would be temporarily installed and maintained to control public access from FS Road 2612 to these areas for safety purpose. Proposed pad locations should offer areas large enough to accommodate the equipment without restricting access. Where the Proposed Action occurs near FS Road 2612 or the access road to the Green River Horse Camp (Pads 01-05, 14 and 15), access would be limited and controlled by the contractor. Public access to areas of active operations would be discouraged.</td>
<td>3.11</td>
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<td><strong>Vegetation</strong></td>
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<tr>
<td>BMP-62</td>
<td>To prevent the introduction of noxious weeds into the project area all heavy equipment will be cleaned prior to entering National Forest System lands. An inspection by the USFS would be required to ensure that equipment is clean before work can begin.</td>
<td>3.7</td>
</tr>
<tr>
<td>BMP-63</td>
<td>Weed-free straw and/or mulch would be used.</td>
<td>3.7</td>
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<tr>
<td>BMP-64</td>
<td>The Guide to Noxious Weed Prevention Practices (USDA 2001) would be followed.</td>
<td>3.7</td>
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<tr>
<td>BMP-65</td>
<td>The Pacific Northwest Region Invasive Plant Program Record of Decision for Preventing and Managing Invasive Plants (USDA 2005) would be followed.</td>
<td>3.7</td>
</tr>
<tr>
<td>BMP-66</td>
<td>Native plant materials would be used as the first choice in revegetation for restoration and rehabilitation where timely natural regeneration of the native plant community is not likely to occur. Under no circumstances would non-native invasive plant species be used for revegetation.</td>
<td>3.7</td>
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<tr>
<td>BMP-67</td>
<td>Road reactivation clearing zones would be minimized, as much as safety regulations will allow.</td>
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<td></td>
<td><strong>Visual and Scenic Resources</strong></td>
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<tr>
<td>BMP-68</td>
<td>Downcast lighting during night operations would reduce indirect effects. Drilling operations would be mobile and visual impacts from the presence of the drill would be temporary at each pad location. As needed, baffles can be placed around the mobile drill rig to further attenuate light intrusion to surrounding environs during night time operations.</td>
<td>3.9</td>
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<tr>
<td></td>
<td><strong>Wildlife Resources</strong></td>
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</tr>
<tr>
<td>BMP-69</td>
<td>The project would have a limited operating period from March 1 to July 15 in the northern portion of the project area where mature forest is located to protect suitable owl habitat. No surface disturbing activities will occur from March 1 to July 15. No road reactivation or drilling activities in or immediately adjacent to the late successional older forest stands in the upper elevation section of the Project Area would occur until after July 15. Road reactivation or drilling would occur only between July 16 and February 28 for the northern portion of the Project Area where suitable Northern Spotted Owl habitat is present.</td>
<td>3.5</td>
</tr>
<tr>
<td>BMP-70</td>
<td>Lighting used for construction and operation of the project would be limited to the minimum needed for safety and reasonable functionality; in certain instances, lighting would be further managed by directing operational lighting inward.</td>
<td>3.5</td>
</tr>
<tr>
<td>BMP-71</td>
<td>Drilling equipment and generators would be outfitted with noise muffling devices when feasible to reduce the level of disturbance to wildlife from noise.</td>
<td>3.5</td>
</tr>
<tr>
<td>BMP-72</td>
<td>If listed species or critical habitats not identified in the EA are encountered, they would be appropriately identified and project activities appropriately adjusted to avoid or minimize impacts.</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**ADDITIONAL PROTECTIVE MEASURES**

In addition to the above specified and recommended conditions, and notices, I have selected alternative 4 which requires protective measures including standard stipulations and design features identified by the BLM and Forest Service (EA, Section 2.1.2.3). These measures will be included in the BLM’s approval of the exploration plan, should the prospecting permits be issued. Specifying conditions for consent by the Forest Service is limited to the authority of the agency under the statutory framework. Additional protective measures identified under alternative 4 are not a Forest Service decision, per se; however, they are a component and requirement of the alternative and are the basis, in part, for my decision and finding of no significant impact.