

**Determination of NEPA Adequacy,
Decision Record and Finding of No Significant Impact**

Mt. Baker Geothermal Lease Sale

**U.S. Department of Interior
Bureau of Land Management, Oregon State Office
DOI-BLM-ORWA-0000-2020-0002-DNA
May 15, 2020**



Case File No: WAOR-67716 (MBKF-0390N-0080E-0001)

Case File No: WAOR-67715 (MBKF-0390N-0080E-0003)

Table of Contents

Determination of NEPA Adequacy _____	1
Introduction _____	1
Purpose and Need _____	1
Regulatory Framework _____	1
Project Background _____	3
Tiering and Incorporation by Reference _____	3
BLM Proposed Action _____	6
Land Use Plan (LUP) Conformance _____	6
NEPA Adequacy Criteria _____	7
Persons/Agencies /BLM Staff Consulted _____	9
Conclusion _____	9
Decision Record _____	11
Administrative Remedies _____	13
Finding of No Significant Impact _____	14
Introduction _____	14
Significance Determination _____	15
Context _____	15
Intensity _____	16
Finding _____	23
Attachment A: List of References _____	see separate file
Attachment B: Project Area _____	see separate file
Attachment C: Forest Service and BLM Memorandum of Understanding _____	see separate file
Attachment D: Legal Description Parcel MBKF-0370N-0080E-0001 _____	see separate file
Attachment E: Stipulations Parcel MBKF-0370N-0080E-0001 _____	see separate file
Attachment F: Legal Description Parcel MBKF-0390N-0080E-0003 _____	see separate file
Attachment G: Stipulations Parcel MBKF-0390N-0080E-0003 _____	see separate file

**Determination of NEPA Adequacy for the
Mt. Baker Lease Sale, DOI-BLM-ORWA-0000-2020-0002-DNA**
U.S. Department of the Interior, Bureau of Land Management

Introduction

Purpose and Need

Need: The Bureau of Land Management (BLM) Oregon State Office has received two administrative review documents and correspondence prepared by the United States Forest Service (Forest Service) Mt. Baker-Snoqualmie National Forest (MBS) consenting to the lease of two parcels of land totaling 9,346.11 acres for geothermal resources. These parcels are designated MBKF-0370N-0080E-0001 (4,234.18 acres) and MBKF-0390N-0080E-0003 (5,111.93 acres) by the MBS. Refer to the attached map and legal descriptions. The MBS consent is conditioned on issuing the lease subject to the attached *Stipulations for Lands of the National Forest System Land of the National Forest System under the Jurisdiction of the Department of Agriculture* (Attachments E1 to E14 and G1 to G13).

Purpose: The purpose of this document is (1) to evaluate whether the proposed action and stipulations are adequately analyzed in the existing NEPA document(s) and are in conformance with the applicable land use plan(s), and (2) to evaluate whether the public involvement and interagency review, including tribal consultation, are adequate for the proposed action.

The BLM's DNA and the attached Finding of No Significant Impact (FONSI) and Decision Record (DR) are based on the *Mt. Baker Geothermal Consent to Lease FINAL Environmental Assessment*, May 2015 (Final EA); the *Decision Notice and FONSI, Mt Baker Geothermal Consent to Lease*, September 4, 2015; the *Administrative Review for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003*, October 3, 2019; the *2008 Final Programmatic Environmental Impact Statement for Geothermal Leasing in the Western United States* (Programmatic EIS), October 2008; and the *Record of Decision and Resource Management Plan Amendments for Geothermal Leasing in the Western United States*, December 2008. These documents are hereby incorporated by reference.

Regulatory Framework

The leasing of geothermal resources on Federal lands is authorized under the Geothermal Steam Act of 1970 (30 U.S.C. § 1001 et seq.), as amended by the Energy Policy Act of 2005 (42 U.S.C. § 15801 et seq.), consistent with regulations at 34 C.F.R. 3200 – Geothermal Resource Leasing, and for lands administered by the Department of Agriculture, at 43 C.F.R. 3201 – Available Lands.

The leasing of geothermal resources is subject to Federal, State, and local laws, regulations, and policies. The following are many of the Federal laws, regulations and policies taken into consideration in developing this DNA: Geothermal Steam Act of 1970 (30 U.S.C. § 1001 et seq.); Energy Policy Act of 2005 (42 U.S.C. § 15801 et seq.); Executive Order 13423; National

Forest Management Act of 1976 (NFMA) (16 U.S.C. §§1600 et seq.); Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. 35 § 1701 et seq.); the Mining and Minerals Policy Act of 1970 (30 U.S. Code § 21 et seq.; and the Endangered Species Act (ESA) (16 U.S.C. - Chapter 35); Clean Water Act (33 U.S. Code § 1251-1387).

Administrative procedures for leasing are outlined in the Memorandum of Understanding (MOU) between the United States Department of the Interior and United States Department of Agriculture for Implementation of Section 225 of The Energy Policy Act of 2005 Regarding Geothermal Leasing and Permitting¹ (National-level MOU).

In accordance with the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.), as amended by the Energy Policy Act of 2005 (42 U.S.C. 15801 et seq.), the BLM receives nominations from applicants for leasing of potential geothermal resources. When these nominations are located on National Forest System (NFS) lands, the BLM forwards the proposals to the Forest Service, who, in cooperation with the BLM, is responsible for conducting NEPA analysis for consenting to lease, identifying appropriate lease stipulations under which the lease may be developed, and ensuring that leasing is consistent with applicable Land and Resource Management Plan (LRMP) and complies with other regulation and policy.

The BLM manages the federal mineral estate and is responsible for issuing geothermal leases, including on NFS lands, but can only do so if the Forest Service determines its lands are available for lease and consents to leasing. If the USFS makes such a determination, the BLM is responsible for conducting any geothermal lease sale(s) and for issuing any lease(s). The BLM can impose additional terms, conditions, or stipulations deemed necessary or appropriate and must make an independent decision whether to offer the lease(s) for sale and to issue the lease(s) after reviewing the decision and documentation presented by the USFS, as well as other relevant factors.

Subsequent to leasing, if exploration is proposed on leased lands by the lessee, the permit application is submitted to the BLM. Any post-leasing exploration or development is subject to further environmental analysis and approval (see 43 C.F.R. 3260, 3270). The BLM coordinates additional NEPA review with the Forest Service, which proposes permit conditions of approval involving surface issues. If the BLM, in consultation with the USFS, approves a Notice of Intent (NOI) consistent with the requirements at 43 C.F.R. 3251, impacts would be avoided, minimized, or mitigated through the application of lease stipulations, implementation of BMPs, and additional conditions of approval identified through analysis. Following exploration, if an operator proposes to drill wells intended for production or injection, or to utilize the geothermal resource (which are lease exclusive operations), the BLM is responsible for review and final approval of these types of operational permit applications, after consultation with the Forest Service. Under most circumstances, a single NEPA document would be prepared with the BLM as lead and the Forest Service as a cooperating agency for any applications for exploration or development.

¹ BLM MOU WO300-2006-08 and USFS Agreement No. 06-SU-11132428-051, signed April 14, 2006

Project Background

Project Location

The Project Area is located approximately 23 miles east of Bellingham, Washington and 16 miles northeast of Sedro-Woolley, Washington (see Attachment B). The majority of the Project Area is within Whatcom County with some portions straddling the Skagit - Whatcom County line. The Project Area does not include the Mt. Baker Wilderness, Mt. Baker National Recreation Area, Sulphur Creek Botanical Area, or the North Fork Nooksack Research Natural Area. These areas are excluded from mineral leasing, either by Federal statute or Forest Plan direction.

Lease Nominations

In May of 2011, the MBS received written notification from the BLM that a company had expressed interest in exploring and potentially developing geothermal energy on 5,500 acres lands within the MBS situated between Mt. Baker and Baker Lake. This application was later withdrawn. In March of 2013, the MBS received a second nomination letter forwarded from the BLM to lease an additional estimated 14,640 acres.

In order to efficiently address nominated parcels and all potential future nominations in one environmental assessment (EA), the Forest Service analyzed an area that includes all National Forest System (NFS) lands managed by the MBS surrounding Mt. Baker that are eligible for mineral entry, whether formally nominated or not. This resulted in a Project Area of approximately 81,820 acres.

Preparation of the EA

The MBS prepared the Final EA, to 1) determine surface suitability for potential geothermal exploration and development, with stipulations, on approximately 81,820 acres of NFS lands on the MBS and to 2) to determine whether effects of the proposed leasing activities are significant and require preparation of an environmental impact statement. The Final EA also considered a No Action Alternative where the MBS would not consent to geothermal leases.

The BLM participated as a cooperating agency in the preparation of the Final EA to determine the environmental effects of geothermal leasing on the nominated parcels and the additional parcels identified by the MBS. Refer to Attachment C for the Memorandum of Understanding.

Tiering and Incorporation by Reference

The 2008 Programmatic Environmental Impact Statement (Programmatic EIS)

The Final EA and the Forest Service-prepared FONSI, Consent to Lease Decision Notice, and Administrative Reviews for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003 all tier to the Programmatic EIS (CITE). The Programmatic EIS was used as a framework for analyzing the proposed Consent to Lease for potential environmental effects and is hereby incorporated by reference. Analysis of environmental effects, best management practices, and stipulations in the Programmatic EIS were used as a basis for determining which NFS lands in

the vicinity of Mt. Baker are suitable for geothermal leasing. Included in the proposed action are Stipulations, Best Management Practices (BMPs) (Programmatic EIS pp. 2-16 through 2-21) and the Reasonably Foreseeable Development (RFD) Scenario (Programmatic EIS pp. 2-40 through 2-48).

The Reasonably Foreseeable Development Scenario (RFD scenario)

The RFD scenario includes the four typical phases of geothermal development. See Table 1: Typical Phases of Geothermal Development under the RFD Scenario below. The estimated acres of disturbance for each phase are described in detail in the Programmatic EIS (pp. 2-34 through 2-49) and are hereby incorporated by reference. The RFD scenario serves as the basis for analyzing the environmental impacts that could result from potential future leasing and development of Federal geothermal resources over the next 20 years. A variety of factors (e.g., economic, social, and political) beyond the control of the BLM and Forest Service may influence the future demand for geothermal resources. However, the RFD scenario represents the best professional estimate of what may occur if NFS lands are leased.

Table 1: Typical Phases of Geothermal Development under the RFD Scenario

Typical Phases of Geothermal Development		Objectives	Activities
Phase One	Geothermal Resource Exploration	Exploration for evidence of geothermal resources; generally, 1 to 5 years to complete	Includes, but not limited to, geophysical operations, site clearing, drilling but not reaching geothermal resource, access roads and trails.
Phase Two	Drilling Operations	Exploration wells to test the geothermal reservoir	Flow testing, chemical evaluation of geothermal fluids, inject fluids into a geothermal reservoir, construct sumps or pits, development of minor infrastructure.
Phase Three	Utilization	Infrastructure for commercial operations	Access roads, drill site development install wellfield equipment, construct a power plant, install electric transmission lines, reclamation.
Phase Four	Reclamation and Abandonment	Well abandonment following production, reclaim disturbed areas	Plugging, capping, and reclaiming well site. Remove power plant and all surface equipment and structures, re-grade site and access roads to pre-disturbance contours, replant vegetation.

BLM Proposed Action

Geothermal Lease Sale

The BLM proposes to offer for competitive sale and lease two parcels totaling 9,346.11 acres located on the MBS. These parcels are designated MBKF-0370N-0080E-0001 (see Attachment D) and MBKF-0390N-0080E-0003 (see Attachment F) by the MBS.

The proposed leasing has no direct impacts on any resources because no specific surface disturbing activities are authorized.

Leasing establishes an encumbrance on the leased lands. Geothermal lease holders are vested with a non-exclusive right to future exploration and an exclusive right to develop, produce, and use the geothermal resources within the leased area (subject to existing laws, regulations, and formal orders) under the terms, conditions and stipulations in or attached to the lease form.

A lease is issued for a primary term of 10 years and may be extended for two 5-year periods. Each of these extensions is available provided the lessee met the work commitment requirements or made payment in lieu of minimum work requirements each year. Once commercial production is established, the lease may be extended for up to 35 years and renewed for an additional 55 years. The lease must continue to produce to remain in effect. The BLM may grant a suspension of operations and production on a lease when justified by the operator (see 43 CFR 3207).

Land Use Plan (LUP) Conformance

As determined by the MBS in the Final EA and the Forest Service-prepared FONSI, Consent to Lease Decision Notice, and Administrative Reviews for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, the proposed action conforms to the *Mt. Baker-Snoqualmie National Forest Land and Resource Management Plan (LRMP)*, *Final Environmental Impact Statement (FEIS)*, June 1990; and the *Record of Decision (ROD)*, *Mt. Baker-Snoqualmie NF, LRMP FEIS*, 6/8/1990; as amended. The LRMP has subsequently been amended by the *Final Supplemental EIS on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl*, February 1994; the *ROD for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*, April 13, 1994; the *Final Programmatic Environmental Impact Statement (Programmatic EIS) for Geothermal Leasing in the Western United States*, 10/2008; and the *ROD and Resource Management Plan Amendments for Geothermal Leasing in the Western United States*, December 2008.

In accordance with the Federal Land Management Policy Act (FLPMA), the MBS has determined that proposed action is in conformance with the applicable Mt. Baker-Snoqualmie Forest Service LRMP, as amended, because it is clearly consistent with the following LRMP goals and desired future conditions:

Goals

The goals of the LRMP provide for the (1) exploration, development, and utilization of energy resources, (2) inclusion of special stipulations to integrate exploration and development with the protection and management of other resources and uses, and (3) minimization of adverse environmental effects of energy resource exploration, development and extraction on other resources and uses (LRMP p. 4-6).

Desired Future Condition

The LRMP desired future condition for energy resources predicts an increasing interest in geothermal resources (LRMP p. 4-11).

The BLM has relied on the determinations of LRMP consistency contained in the Final EA. The Final EA is appropriately tiered to the Final EIS for the Mt. Baker-Snoqualmie Land and Resource Management Plan, as amended. Refer to the “Forest Plan Consistency” section at the end of each resource area in Chapter 3 of the EA for an assessment of project consistency with applicable LRMP Standards and Guidelines.

NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes. The proposed geothermal leasing is considered for lease in the Programmatic EIS and the proposed geothermal lease parcels are a subset of parcels considered for lease in the Final EA. The MBS Decision Notice provided consent to the BLM to sell by competitive bid and issue geothermal leases on 14,620 acres of nominated lands and the remaining 67,200 acres of Forest Service proposed lands (total 81,820 acres) within the project area. As identified in the Final EA and Administrative Review documents, the parcels are subject to specific stipulations, including no surface occupancy, controlled surface use, and timing limitations. The parcels proposed for lease are a further subset of the nominated parcels totaling 9,346.11 acres. The MBS Decision Notice adopted additional stipulations, however, only those stipulations applicable to the specific parcels proposed for lease by the BLM, as provided in the administrative review documents, have been included the BLM’s proposed action.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Yes. The Final EA considered both the Proposed Action and a No Action Alternative. In addition, the EA appropriately tiered to the RFD scenario in the 2008 Programmatic EIS to identify the potential environmental effects of potential exploration and development to determine appropriate best management practices and apply additional stipulations to address the

environmental concerns, interests, resource values and management direction and allocations within the project area.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes. On September 4, 2019, the MBS completed an Administrative Review for each of the parcels proposed for lease. That review concluded that there were no significant new circumstances or information relevant to environmental concerns related to leasing that require completion of supplemental environmental analysis before these parcels can be leased. The review also included applicable lease stipulations for each parcel for inclusion in the BLM lease documents. The BLM has reviewed these documents and concurs with the findings of the surface-managing agency. Other parcels identified in the Final EA will be subject to additional Administrative Review if they are proposed for lease.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes. The direct, indirect, and cumulative effects of the proposed action to offer for sale and issue geothermal leases on two parcels is quantitatively and qualitatively a subset of those examined and disclosed in the Final EA, and quantitatively and qualitatively similar to leasing actions analyzed in the Programmatic EIS.

The Final EA appropriately incorporated by reference the RFD scenarios, BMPs and stipulations from the Programmatic EIS. The Final EA evaluated the RFD scenario to determine what stipulations would be required to adequately protect resources. The RFD scenario serves as the basis for analyzing environmental impacts that could potentially result from potential future leasing and development of Federal geothermal resources over the next 20 years.

The proposed action includes resource protection measures, lease stipulations and best management practices that reduce or eliminate unwanted effects and ensure that potential geothermal activities comply with management direction. Resource protection measures are derived from but not limited to the Mt. Baker-Snoqualmie National Forest LRMP, as amended, the Northwest Forest Plan goals, objectives, standards and guidelines, best management practices, conservation measures, invasive plant prevention practices, and previous projects where measures have been shown to be effective.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes. The BLM was a cooperating agency in preparation of the Final EA. The MBS, the Lead Federal agency for preparation of the Final EA, provided sufficient opportunities for public involvement during the development of the Final EA. Public participation and review opportunities included a notice of public scoping on October 31, 2014, publication of a Legal

Notice of Opportunity to Comment on the Draft EA, and notification by letter to parties who provided comment during the scoping period on February 2, 2015 (EA, pages 8-9).

The BLM and the Forest Service jointly prepared the Programmatic EIS to analyze and expedite the leasing of BLM-administered and NFS lands with high potential for renewable geothermal resources in 11 western states and Alaska. The public scoping period on the Programmatic EIS began with the publication of the Notice of Intent (NOI) in the Federal Register on June 13, 2007, and continued through August 13, 2007 (Programmatic EIS, pages 1-30 to 1-32). A project website was launched prior to the beginning of the scoping period and was maintained and expanded throughout scoping. Soon after the scoping period began, project newsletters were mailed to the project mailing list of approximately 1,600 individuals. Public scoping meetings, hosted by the BLM and Forest Service, were held throughout July 2007 in ten cities across the western US, including Alaska. On June 20, 2008 the Notice of Availability of the Draft Programmatic EIS was published in the Federal Register. The NOA initiated the 90-day public comment period. The BLM and Forest Service conducted 13 public meetings during July 2008 in the 12 western states to solicit comments. The Draft EA provided the public, interested groups, state and local governments, and tribes an opportunity to review and comment on materials incorporated by reference from the Programmatic EIS.

Tribal Consultation

In accordance with Section 106 of the National Historic Preservation Act and Executive Order 13175, consultation on the Final EA with the following tribes was initiated in a letter dated April 9, 2012 on the initial proposed action as described in the Background Section: Lummi, Nooksack, Samish, Swinomish, Sauk-Suiattle, Tulalip, and Upper Skagit Tribes. Consultation was reinitiated with these same tribes in a second letter dated October 23, 2014 describing the changes to the original proposed action and asking for information to be considered during development of the Final EA. Consultation continued with letters dated February 4, 2015 to the same seven tribes announcing the opportunity to comment on the Draft EA. In addition, the District Ranger met with representatives of the Upper Skagit Tribe on March 13, 2015 to discuss this project.

Persons/Agencies /BLM Staff Consulted

Todd Griffin, Forest Geologist, Mt. Baker-Snoqualmie National Forest
Luke Poff, Section Chief, Mineral and Energy Adjudication, BLM Oregon State Office
Leslie Frewing, Program Analyst (Planning), BLM Oregon State Office
Lenore Heppler, Chief, Branch of Land, Mineral and Energy Resources, BLM Oregon State Office

Refer to the Final EA for a complete list of the Interdisciplinary Team members participating in the preparation of the Mt. Baker Geothermal Consent to Lease Final EA.

Conclusion

Based on the review documented above, I conclude that the proposed action, including all stipulations, have been adequately analyzed in the Mt. Baker Geothermal Consent to Lease Final

EA, and the Forest Service-prepared FONSI, Consent to Lease Decision Notice, and Administrative Reviews for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003; conforms to the applicable land use plan; and that public involvement and interagency review, including tribal consultation, satisfies BLM's NEPA compliance requirements.

Signature of Project Lead:

Luke Poff
Section Chief, Mineral and Energy Adjudication

Date

Signature of NEPA Coordinator:

Leslie Frewing
Program Analyst (Planning)

Date

Signature of the Responsible Official:

Lenore Heppler
Chief, Branch of Land, Minerals and Energy Resources

Date

Note: The signed conclusion on this worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

Decision Record for the Mt. Baker Lease Sale
DOI-BLM-ORWA-0000-2020-0002-DNA
US Department of the Interior, Bureau of Land Management

As the responsible BLM official, it is my decision to offer 9,346.11 acres of National Forest System (NFS) lands administered by the Mt. Baker-Snoqualmie National Forest (MBS). In reaching this decision, I determined that the *Mt. Baker Geothermal Consent to Lease FINAL EA* (Final EA) adequately describes the environmental setting of the proposed leasing project, including the related and projected environmental effects, possible Reasonably Foreseeable Development (RFD), and appropriate stipulations.

As documented in the BLM-prepared *Determination of NEPA Adequacy for the Mt. Baker Lease Sale* (DOI-BLM-ORWA-0000-2020-002-DNA) (DNA) and the attached *Finding of No Significant Impact for the Mt. Baker Lease Sale*, in making my decision, I have relied on evidence presented in the Programmatic EIS, the Final EA, and the MBS-prepared Finding of No Significant Impact (FONSI), Decision Notice, the Administrative Review for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, 2019 and Consent to Lease, dated October 3, 2019.

The BLM participated as a cooperating agency in the preparation of the Final EA. The Final EA, MBS decision documents, and the MBS administrative review documents have been independently reviewed by the BLM and used as the basis for this administrative decision to offer the specified 9,346.11 acres for competitive geothermal lease sale. These documents, and the documents to which they tier or incorporate by reference, are incorporated herein by reference and considered as part of my decision. The offered lands are subject to all leasing stipulations and restrictions for the protection of surface, hydrologic, biotic, and geophysical resources specified in the MBS Administrative Review documents for the parcels designated as MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003. See Attachments D, E1-14, F and Attachments G1-13 for legal descriptions, maps and applicable stipulations by parcel.

As documented in the attached BLM-prepared FONSI and the FONSI prepared by the MBS, neither offering the leases for sale nor executing leases will have a significant effect on the human environment. These are administrative actions. A geothermal lease exclusively entitles the lessee(s) to seek further authorizations to conduct exploration for geothermal resources and/or development. Any such proposal to explore, develop, or in any other manner use the lands or resources is subject to BLM's approval following environmental review, analysis, and public disclosure required by the National Environmental Policy Act, or any other review, analysis, or consultation undertaken by the Department of the Interior or the Department of Agriculture under applicable law and regulations. The BLM has absolute discretion to condition or deny, as appropriate, any proposed exploration or development operations beyond casual use. No ground-disturbing activity may commence until BLM approves and issues a specific permit. Thus, there are no environmental effects arising from implementation of the Proposed Action that meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27. Therefore, the BLM will not prepare an Environmental Impact Statement (EIS) specific to this decision.

This decision implements the BLM's action to offer and issue geothermal leases. The decision authorizes the sale of geothermal leases and issuing of those leases, subject to applicable stipulations, should they be sold. The lessee would then be responsible to secure any local, state or Federal permits and approvals as applicable and required by law for future operations or development of the leased parcels. This decision authorizes the offer and issuance of geothermal leases on the specified parcels only, subject to the listed stipulations. No specific surface disturbing actions to explore for or develop geothermal resources are permitted by this decision and none may commence until the BLM approves and issues a specific permit.

Geothermal leases would be issued using the BLM Standard Form 3200-24 – Offer to Lease and Lease for Geothermal Resources, inclusive of the stipulations listed in Attachments E1-14 and Attachments G1-13.

Subsequent to leasing, if exploration or development is proposed on leased lands by the lessee, the lessee must submit a permit application to the BLM. The BLM then coordinates additional NEPA review with the Forest Service, which may propose additional permit conditions for protection of resources. The BLM then determines if the permit application should be approved and, if approved, what conditions of approval would be attached to the permit. Following exploration, if an operator proposes to drill wells intended for production or injection or to utilize the geothermal resource (which are lease exclusive operations), the BLM is responsible for review and final approval of these types of operational permit applications, after consultation with the Forest Service. Under most circumstances, a single NEPA document would be prepared with the BLM as lead and the Forest Service as a cooperating agency.

Signature of the Responsible Official:

Lenore Heppler
Chief, Branch of Land, Minerals and Energy Resources

Date

Administrative Remedies

This is a land and resource decision in accordance with BLM regulations at 43 CFR Subpart 3200 – Geothermal Resource Leasing. The BLM decisions under 43 CFR 3203 – Competitive Leasing typically become effective on the day after the expiration of the appeal period (30 days after the date of service) where no petition for a stay is filed or 45 days after the expiration of the appeal period where a timely petition for a stay is filed, unless the Director of the Office of Hearings and Appeals or an Appeals Board has determined otherwise in accordance with specified standards enumerated in 43 CFR 4.21(b).

This decision may be appealed to the U.S. Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals (Board) in accordance with the procedures outlined in 43 CFR Part 4, Subpart E. If an appeal is taken, a written notice of appeal must be received by the BLM officer who made the decision (not the Board) no later than 30 days after the date of service of the decision. Only signed hard copies of a notice of appeal that are delivered to the following address will be accepted:

Bureau of Land Management, Oregon State Office
Attention: Chief, Branch of Land, Mineral and Energy Resources
P.O. Box 2965
Portland, Oregon 97208

Faxed or e-mailed appeals will not be considered. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR § 1.3.

According to 43 CFR Part 4, an appellant may petition the Board to stay the implementation of the decision. If filed, a stay request should accompany the notice of appeal. As required by 43 CFR 4.21(b), a petition for stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay.

**Finding of No Significant Impact
for the
Mt. Baker Lease Sale, DOI-BLM-ORWA-0000-2020-0002-DNA**
US Department of the Interior, Bureau of Land Management

Introduction

The Bureau of Land Management (BLM) participated as a cooperating agency in the preparation of the U.S. Forest Service Mt. Baker-Snoqualmie National Forest's (MBS) *Mt. Baker Geothermal Consent to Lease FINAL Environmental Assessment* (Final EA) (May 2015). The BLM has reviewed the Final EA, and the MBS-prepared Decision Notice, Finding of No Significant Impact (FONSI), the Consent to Lease, and Administrative Reviews for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, October 3, 2019.

The Project Area analyzed in the Final EA is located approximately 23 miles east of Bellingham, Washington and 16 miles northeast of Sedro-Woolley, Washington (see Attachment B). The majority of the Project Area is within Whatcom County with some portions straddling the Skagit-Whatcom County line. The Project Area did not include the Mt. Baker Wilderness, Mt. Baker National Recreation Area, Sulphur Creek Botanical Area, or the North Fork Nooksack Research Natural Area. These areas are excluded from mineral leasing, either by Statute or Forest Plan direction.

The Final EA analyzed the effects of leasing 81,820 acres of National Forest System (NFS) lands for competitive geothermal leasing pursuant to regulations at Part 43 Code of Federal Regulations (CFR) Group 3200 – *Geothermal Resources Leasing*. The MBS Decision Notice provided consent to the BLM to offer for sale and award leases on the 14,620 acres of industry nominated lands and the remaining 67,200 acres of Forest Service proposed lands (total 81,820 acres). The MBS consent is conditioned on attachment of Lease Stipulations identified in the Final EA, Attachment C. The BLM has documented the adequacy of the Final EA for the Proposed Lease Sale of parcels designated MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003 by the MBS in the attached Determination of NEPA Adequacy (DNA) (ePlanning number DOI-BLM-ORWA-0000-2020-0002-DNA).

The BLM, as the federal government's manager of the federal mineral estate, is responsible for issuing geothermal leases, including those on NFS lands, but can only do so if the MBS determines its lands are available for lease and consents to the lease. In this case, industry nominated a portion of the area analyzed in the Final EA for lease for potential geothermal exploration and possible energy development. The BLM forwarded this nomination to the MBS for consideration. In order to improve administrative efficiency, the MBS proposed additional lands for concurrent analysis in the Final EA.

The BLM proposed action is to lease 9,346.11 acres where the MBS has completed administrative reviews and provided the BLM with a Letter on Consent (October 3, 2019). The consent is conditioned on attaching the provided *Stipulations for Lands of the National Forest*

System Land of the National Forest System under the Jurisdiction of the Department of Agriculture. The parcels proposed for lease are a subset of lands analyzed in the Final EA and included in the MBS Decision Notice and FONSI. The Administrative Review documents and Letter of Consent only address parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, totaling 9,346.11 acres of the 14,620 acres of industry nominated lands. Attachments D and F contain the legal description and acres of lands proposed for lease within the Project Area.

The information contained in the PEIS and Final EA adequately addresses environmental impacts of the BLM's proposed action and the PEIS and Final EA satisfy the BLM's own National Environmental Policy Act (NEPA) procedures as documented in the above DNA. The PEIS, Final EA and the MBS-prepared FONSI, Decision Record, Administrative Reviews and Letter of Consent are hereby incorporated by reference and available for public review at the BLM's ePlanning website:

https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do

Significance Determination

The Council on Environmental Quality (CEQ) regulations state that the significance of impacts must be determined in terms of both context and intensity (40 CFR 1508.27). If the proposed action is found to have significant effects as defined by CEQ regulations (40 CFR 1508.27) the BLM would need to prepare an environmental impact statement before signing a decision.

In making my determination I have considered the documents listed in the DNA, including those to which the Final EA was tiered and those incorporated by reference, and I have relied on the determinations of the MBS, as the surface managing agency, regarding the relative impacts of the proposed action and evaluation of the effectiveness of stipulations to provide for plan consistency and protecting the many resources managed by that agency.

Context

I have considered the potential context and scale of the impacts of leasing the subject lands and potential geothermal resources, and have found that the effects of the actions are limited in context because:

- A decision to offer the specified lands for competitive geothermal lease sale and issuance of leases conveys no authorization to conduct on-the-ground activities and results in no significant disturbance of federal lands, resources, or improvements.
- Any post-lease activities associated with exploration for geothermal resources would only take place if the BLM, in consultation with the Forest Service, were to approve a Notice of Intent (NOI) consistent with requirements at 43 CFR 3251 – Exploration Operations: Getting BLM Approval. Similarly, development of any geothermal resources for energy production would require approval of Sundry Notices in order to construct drill sites and conduct drilling operations as stipulated at 43 CFR 3260 – Geothermal Drilling Operations: General. BLM may approve, approve with conditions, or deny NOIs and Sundry Notices. See 43 C.F.R. 3251.12; 3261.20.

- BLM approval of either a NOI or Sundry Notices would require additional NEPA analysis.

Intensity

As disclosed below I have considered the potential intensity and severity of the impacts anticipated from implementation of a decision to offer the subject lands for leasing of potential geothermal resources relative to each of the ten areas suggested for consideration by the CEQ.

In the statements and findings below, reference is made to the proposed action being sale and issuance of geothermal leases, and not a surface-disturbing action. The following stipulation would be included in all leases resulting from a decision on this project:

“Any proposal to explore, develop, or in any other manner use the lands or resources described herein, is subject to BLM approval following environmental review, analysis, and public disclosure required by NEPA, or any other review, analysis, or consultation undertaken by the Department of the Interior or the Department of Agriculture under applicable law and regulations. The BLM has absolute discretion to condition or deny, as appropriate, any proposed exploration or development operations beyond casual use. No surface-disturbing activity may commence until the BLM approves and issues a specific permit.”

1. Would the proposed action have significant beneficial or adverse impacts (40 CFR 1508.27(b)(1))?

No. The proposed geothermal lease sale and issuance would result in no tangible effects, beneficial or adverse, on the biological, cultural, or physical resources on the parcels because this action conveys no authorization of surface-disturbing activities. The Reasonably Foreseeable Development (RFD) scenario in the Final EA is appropriately tiered to the Final Programmatic Environmental Impact Statement for Geothermal Leasing (Programmatic EIS) in the Western United States of 2008, and was utilized to develop and analyze the effectiveness of stipulations in achieving conformance with the Mt. Baker-Snoqualmie Land and Resource Management Plan (LRMP), as amended, and other applicable law, regulation and policy.

The proposed lease sale and issuance appropriately responds the administrative needs outlined in the Final EA (Final EA, page 7) under the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.), as amended by the Energy Policy Act of 2005 (42 U.S.C. § 15801 et seq.), by leasing lands determined to be administratively available for lease by the MBS and application of appropriate resource protection stipulations.

Possible impacts from any requested exploration and development would be described and analyzed during the NEPA analysis of any subsequent NOIs and Sundry Notices.

2. Would the proposed action have significant adverse impacts on public health and safety (40 CFR 1508.27(b)(2))?

No. The proposed geothermal lease sale and issuance would result in no effects on public health and safety because this action conveys no authorization for surface-disturbing activities. No surface disturbing operations are authorized by this decision; thus, no negative public health or safety effects will result from this decision.

Possible impacts to public health and safety from any requested exploration and development would be described and considered during NEPA analysis of any subsequent NOIs and Sundry Notices.

3. Would the proposed action have significant adverse impacts on unique geographic characteristics (cultural or historic resources, park lands, prime and unique farmlands, wetlands, wild and scenic rivers, designated wilderness or wilderness study areas) or ecologically critical areas (ACECs, RNAs, significant caves) (40 CFR 1508.27(b)(3))?

No. The proposed geothermal lease sale and issuance will not adversely affect the unique characteristics of the geographic area such as historical or cultural resources, wetlands, wild and scenic rivers, or ecologically critical areas because this action conveys no authorization for surface-disturbing activities. This proposed action complies with Section 106 of the National Historic Preservation Act under the terms of the 1997 Programmatic Agreement between the Advisory Council for Historic Preservation, the Washington State Historic Preservation Office, and the Forest Service. The proposed action adopts all applicable stipulations identified by the MBS as conditions of the consent to lease. These stipulations assure conformance with the LRMP, as amended, and protect surface uses and resources. No prime and unique farmlands, designated wilderness areas or ecologically critical areas occur in the parcels proposed for lease. Stipulations that apply to the parcels proposed for geothermal leasing are listed below:

No Surface Occupancy (NSO) Stipulations would apply to:

- **Recommended Wild and Scenic Rivers.** Segments of rivers determined to be potentially eligible for Wild and Scenic Rivers (WSR) status by virtue of a WSR inventory, including a corridor of 0.25 miles from the high-water mark on either side of the bank (Management Areas 5A, 5B, 5C). (EA, page 25)
- **Developed Recreation Sites.** Developed recreational facilities, special-use permit recreation sites (e.g., ski resorts and camps), and areas with recreational use with which geothermal development is deemed incompatible, excluding direct use applications. (EA, page 25)
- **Slopes with High Erosion Potential.** Slopes in excess of 40 percent and/or soils with high erosion potential (Soil Class S-8, Unstable and Very Unstable). (EA, page 25)
- **Water bodies, Riparian Reserves, wetlands, playas, and 100-year floodplains,** Water bodies, Riparian Reserves, wetlands, playas, and 100-year floodplains (as defined by the Northwest Forest Plan). (EA, page 25)

Controlled Surface Use Stipulations would apply to:

- **Recreational areas.** This stipulation would be applied to minimize the potential for adverse impacts to recreational values, both motorized and non-motorized, and the natural settings associated with the recreational activity. (EA, page 27)
- **Visual resources.** This stipulation would be applied to NFS lands with a Scenery Management System integrity level of High (Management Area 1B, Semi-Primitive Non-Motorized, with a Visual Quality Objective of Retention); and within the foreground of primary and other sensitive viewsheds, such as the Mt. Baker and Baker Lake Scenic Highways, National Scenic and Historic Trails, or near residential areas. Activities and improvements shall be located, designed, and maintained to be either not evident or visually subordinate to the natural landscape. (EA, page 26)
- **Erodible soils and soils on slopes from 30 to 40 percent.** This stipulation would be applied to minimize the potential for adverse impacts to erodible soils as defined as severe or very severe erosion classes based on Natural Resources Conservation Service mapping. (EA, page 26)
- **Riparian and wetland habitat.** This stipulation would be applied within 500 feet of riparian or wetland vegetation to protect the values and functions of these areas. Measures required will be based on the nature, extent, and value of the area potentially affected. (EA, page 26)
- **Late Successional Reserve Stipulation.** This stipulation would be included in the lease for the purpose of protecting the important habitat conditions within the Late-Successional Reserve (LSR) land allocation of the MBS LRMP, as amended. (EA, page 26)
- **Inventoried Roadless Areas.** This stipulation would be applied to Inventoried Roadless Areas (IRA) to protect the roadless character. Specifically, no new road construction or reconstruction or timber removal is allowed in IRAs. Existing roads and trails may be maintained for exploration only. If future legislation or regulations change the roadless area designation, the restriction would be revised along with any appropriate environmental review. (EA, page 26)

Timing Limitations would be applied to:

- **Protect deer and elk winter and transition ranges.** This stipulation would be applied in Management Area -14 to protect and optimize winter range habitat for deer and elk, and minimize disturbance and harassment, which may include seasonal timing limitations or road closures. Location of new roads shall not adversely affect habitat, and construction or reconstruction shall be timed. (EA, page 26)
- **Protect mountain goat winter and spring ranges.** This stipulation would be applied in Management Area -15 to protect habitat and winter range for mountain goat, and to prevent harassment. No new road construction is allowed. Reconstruction of existing roads shall be timed. (EA, page 26)

Other Lease Stipulations:

- **Endangered Species Act Stipulation**

In accordance with BLM Instruction Memorandum No. 2002-174, the BLM shall apply the following stipulation:

“The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in adverse impacts to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.” (EA, page 27)

- **Sensitive Species and Other Species of Concern Stipulation**

For agency fish, wildlife, and botanical species designated as Sensitive or Of Concern, a lease stipulation (NSO, CSU, or TL) would be imposed for those portions of high value, key, or crucial species habitat where other existing measures are inadequate to meet agency management objectives. (EA, page 27)

- **Cultural Resources Stipulation.** In accordance with BLM Instruction Memorandum No. 2005-003, the BLM will apply the following stipulation to protect cultural resources:

“This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.” (EA, page 27)

- **Geothermal Features Stipulation.** This stipulation would require monitoring of the thermal features such as springs and geysers during any exploration, development, and production of the lease to ensure that there are no impacts to water quality or quantity. (EA, page 28)

4. Would the proposed action have highly controversial effects (40 CFR 1508.27(b)(4))?

No. The proposed geothermal lease sale and issuance results in no tangible effects on the quality of the human environment because this action conveys no authorization for

surface-disturbing activities. The effects of this decision on the quality of the human environment do not rise to the level of controversy as defined with 40 CFR 1508.27(b)(4) because, although there are divergent viewpoints regarding the potential of geothermal related activities and their effects, the conclusions of the effects of geothermal leasing on the human environment, have not been shown to be controversial.

Any potential effects from future authorization of geothermal exploration and development would be the subject of additional, site-specific environmental and regulatory analysis. Therefore, even though there may be effects to various resources from past projects and/or effects from existing or RFD scenarios within the vicinity of the nominated lands, the Proposed Action would have no direct or indirect effect and would not contribute cumulatively to other existing projects that might be highly controversial.

5. Would the proposed action have highly uncertain effects or involve unique or unknown risks (40 CFR 1508.27(b)(5))?

No. The proposed geothermal lease sale and issuance has no highly uncertain or unique or unknown risks affecting the quality of the human environment because it conveys no authorization for surface-disturbing activities. Leasing establishes a known, legal encumbrance on the leased lands. The Final EA appropriately adopted and utilized an RFD scenario to identify and analyze known and potential risks associated with geothermal exploration and development. These known and potential risks were utilized to develop area-specific stipulations for lease parcels based on the resources present and direction in the Mt. Baker-Snoqualmie National Forest LRMP, as amended.

Possible impacts from any requested exploration and development would be described and analyzed during NEPA analysis of any future NOIs and Sundry Notices.

6. Would the proposed action establish a precedent for future actions with significant impacts (40 CFR 1508.27(b)(6))?

No. Geothermal leasing establishes a legal encumbrance on the subject land and an exclusive entitlement for the lessee(s) to propose, and if authorized, carry out geothermal exploration and development pursuant to separate approval of future NOIs and Sundry Notices and associated operating plans. Any such action(s) would require detailed NEPA analysis and determination of consistency with the Mt. Baker-Snoqualmie National Forest LRMP, as amended and appropriate stipulations for protection of other biotic, geophysical, and land use resources that would lead to concurrence from the MBS.

7. Would effects of the proposed action combine with those of other actions with potentially significant cumulative impacts (40 CFR 1508.27(b)(7))?

No. The proposed geothermal lease sale and issuance will not contribute to cumulatively significant impacts because no surface-disturbing actions are authorized. Therefore, there are no effects from lease sale or issuance on the basic resource values of hydrology and soil, fish, plants, and wildlife (Final EA hydrology and soil pp. 47-52; fish pp. 38-43; botanical

resources pp. 33-35; wildlife pp. 71-83). Geothermal leasing establishes a legal encumbrance on the land and an exclusive entitlement to propose and carry out potential geothermal exploration and development pursuant to future NOIs and Sundry Notices and associated operating plans. Geothermal exploration and development are not authorized by the proposed action and have not been proposed. Any subsequent exploration or development actions on leased parcels are subject to additional NEPA review, consent by the MBS, and approval by the BLM.

8. Would the proposed action have significant adverse impacts on scientific, cultural, or historic resources, including those listed or eligible for listing on the National Register of Historic Resources (40 CFR 1508.27(b)(8))?

No. The proposed geothermal lease sale and issuance will not adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or cause the loss or destruction of significant scientific, cultural, or historical resources because no surface-disturbing actions are authorized. Leasing stipulations, as disclosed in the Final EA, Appendix C and noted in the Administrative Review documents for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, have been developed to avoid the effects potential future exploration or development on scientific, cultural, or historic resources identified through the examination of the RFD scenarios.

9. Would the proposed action have significant adverse impacts on threatened or endangered species or their critical habitat (40 CFR 1508.27(b)(9))?

No. The proposed geothermal lease sale and issuance will not adversely affect endangered or threatened species or their critical habitat because no surface-disturbing actions are authorized.

No federally listed plant species are known to occur on the MBS, and none were identified in the project area during past surveys. Thus, the proposed geothermal lease sale and issuance will have no effect on federally listed plant species (EA, page 34).

Consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service on the effects of the Mt. Baker Geothermal Consent to Lease Project on federally listed fish species and designated critical habitats is not required on the proposed geothermal lease sale and issuance as there are no direct, indirect or cumulative effects associated with this action. No consultation is required when a proposed action is determined to have no effect on federally listed species and designated critical habitats (Final EA pp. 84).

The Endangered Species Act Stipulation , excerpted above and disclosed in the Final EA (EA, page 27), Appendix C (EA, page vi) and in the Administrative Review documents for Parcels MBKF-0370N-0080E-0001 and MBKF-0390N-0080E-0003, have been developed to avoid the effects of potential future exploration or development on threatened, endangered, or other special status species or critical habitat is known or strongly suspected.

The No Surface Occupancy stipulation applies to, and would be applied to any future, designated or proposed critical habitat for listed species under the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.), as amended, if the habitat would be adversely modified. Wildlife species listed as endangered or threatened and their designated critical habitat with potential to occur on the MBS are listed in Table 16 of the Final EA and are described in Chapter 3 (EA, page 24)

In accordance with BLM Instruction Memorandum No. 2002-174, the following stipulation would be applied to any leases where threatened, endangered, or other special status species or critical habitat is known or strongly suspected:

“The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM would not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.”

10. Would the proposed action have effects that threaten to violate federal, state, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10))?

No. The proposed geothermal lease sale and issuance, with the stipulations identified in the Final EA and summarized above, is consistent with all federal, state, and local laws imposed for the protection of the environment. The Final EA appropriately tiered to the Programmatic EIS. The RFD scenario described in the Programmatic EIS was utilized to develop and analyze the effectiveness of stipulations in achieving conformance with the LRMP, as amended, and other applicable law, regulation and policy.

Finding

Based on the above documentation, I find that the proposed geothermal lease sale and issuance will not result in a significant impact to the human environment. Therefore, an environmental impact statement will not be prepared.

Signature of the Responsible Official:

Lenore Heppler
Chief, Branch of Land, Minerals and Energy Resources

Date