

MEMORANDUM OF UNDERSTANDING  
BETWEEN  
UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
AND  
UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

COORDINATION OF GEOTHERMAL LEASING AND OPERATIONS PERMITTING  
ON NATIONAL FOREST SYSTEM LANDS

FS Agreement No. 23-MU-11132428-382  
BLM Agreement No. BLM MOU HQ300-2025-05

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between, the United States Department of the Interior, Bureau of Land Management, hereinafter referred to as the BLM, and the United States Department of Agriculture, Forest Service, hereinafter referred to as the Forest Service (or as FS in attached table). It may be supplemented with national direction, or local or project-specific agreements.

I. PURPOSE

The purpose of this Memorandum of Understanding (MOU) is to facilitate interagency coordination between the BLM and the Forest Service as they execute programs, policies, and procedures for administering exploration, leasing, permitting, and utilization of geothermal resources on National Forest System (NFS) lands designated as open to geothermal exploration and development under their respective authorities and land use plans. This MOU concerns only NFS land and the underlying mineral estate.

This MOU satisfies requirements of Sections 222 and 225 of the Energy Policy Act of 2005 amendments to the Geothermal Steam Act, (Pub. L. No. 109-58, August 8, 2005) (the EAct), which directs the Secretary of the Interior and the Secretary of Agriculture to enter into a MOU regarding leasing and permitting for geothermal resource development of public lands and NFS lands under their respective jurisdictions.

The EAct directed the parties to establish a program with a goal of reducing the backlog of geothermal lease applications pending on January 1, 2005, by 90 percent within the 5-year period beginning on the date of enactment of the Act (August 8, 2005). Since this goal was accomplished under the 2006 Section 225 MOU and a report was provided to Congress in accordance with this provision, these matters are not addressed in this MOU.

This MOU succeeds and supersedes the original 5-year BLM and Forest Service Interagency Geothermal MOU on leasing and operations dated April 10, 2006, which implemented the EAct. (BLM MOU WO300-2006-08 and Forest Service Agreement No. 06-SU-11132428-051). This MOU is consistent with the original MOU. In addition, the parties have agreed to expand the scope of the MOU to include permit approval processes for exploration, as well as approvals for the post-leasing stages of development. While the

MOU dated April 10, 2006, had a 5-year term, this MOU provides for a 10-year term (see section VIII).

## II. STATUTORY REQUIREMENTS, POLICY PRIORITIES, AND GOALS

The BLM and Forest Service share common goals in administering the exploration and development of geothermal resources on NFS lands. Planning, leasing, permitting, and promoting the development of geothermal energy are priorities for both agencies. This MOU will provide a mechanism for implementing the requirements in sections 222 and 225 of the EAct as follows (further implementing directives may be required in accordance with the procedures of the respective agencies):

- Clarify, improve, and monitor the effectiveness of administrative procedures for processing geothermal lease applications, including lines of authority, steps in application processing, and time limits for application processing;
- Establish a 5-year program for geothermal leasing of lands in the NFS, and a process for monitoring and updating that program every 5 years;
- Establish, maintain and monitor a joint data retrieval system capable of tracking lease and permit applications and providing to the applicant information as to their status within the Departments of the Interior and Agriculture, including an estimate of the time required for administrative action (see EAct, Pub. L. No. 109-58, § 225(c) (2005));
- Provide that, in areas determined to have a high geothermal resource potential, geothermal leasing and development will be considered by the BLM and the Forest Service during all future land use plans (EAct, Pub. L. No. 109-58, § 222(d)(1) (2005)); and
- Clarify lines of authority and Forest Service jurisdiction for authorizing geothermal exploration operations (pursuant to 43 C.F.R. Subpart 3250 et al.) that do not require a lease under the BLM's regulations, which are either proposed on unleased NFS lands or on leased NFS lands where the applicant is not the lessee, consistent with the Geothermal Steam Act and associated regulations and policies.

Further, this MOU is intended to be consistent with, and responds to, priorities and goals in the following:

- Executive Order 13175 on Consultation and Coordination with Indian Tribal Governments of November 6, 2000.
- Executive Order 13985 on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government of January 20, 2021.
- Presidential Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships of January 26, 2021; and
- Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad of January 27, 2021.

This MOU responds to several of the Department of the Interior's current priorities, which include:

- Identifying steps to establish and implement a program to improve Federal permit coordination with respect to eligible projects on covered land, with the goal of accelerating responsible development of renewable energy (i.e., geothermal) on public lands; and
- Strengthening the government-to-government relationship with sovereign Tribal Nations.

### III. ACTIVITIES AND COOPERATION

Accordingly, the BLM and the Forest Service agree to coordinate and administer the Federal geothermal program on NFS lands in the following manner:

- A. Five-Year Program Review - Beginning on the approval date of this agreement, and every five years thereafter, the BLM and the Forest Service agree to review the status and effectiveness of their coordination at the program level for leasing and permitting actions.
- B. Leasing - BLM and the Forest Service will coordinate consent and leasing environmental analysis to ensure development of lease stipulations is consistent with both agencies' policies and requirements. Where leases cross adjacent BLM and Forest Service administrative boundaries, lease stipulations will be consistent across boundaries to the extent practicable, and as restrictive as necessary to protect the resource(s) for which they are developed.

To the extent that laws governing administration of special designation lands differ from the statutory scheme under the Geothermal Steam Act of 1970, as amended, specific statutory requirements of such laws will control and, as such, may supersede the terms of this MOU. Administration of geothermal leasing and permitting proposals under those Acts will require close coordination and will be addressed in project specific MOUs developed by the Forest Service and the BLM in accordance with paragraph VII (d)(ii) of this MOU.

- C. Operations - The BLM and the Forest Service agree to cooperate in reviewing operational and other project-level proposals in accordance with the regulations at 43 CFR 3200. The BLM and the Forest Service will cooperate to ensure the management goals and objectives for geothermal exploration and development of both agencies are achieved, that operations are conducted to avoid and/or mitigate effects on natural resources, and that the lands affected by operations are reclaimed.
- D. Service - Responses to applications, and completion of any environmental compliance or analysis required before offering lands for leasing and approving permits, will occur promptly, in close coordination and in a consistent manner between agencies. By developing a consistent approach, the agencies consciously eliminate duplication of effort offering greater efficiency and improvement of customer service.
- E. Information and Joint Data Retrieval System - The BLM and the Forest Service will provide the public with electronic access to non-confidential information on Federal leases and operations on those leases, including status of applications and requests. The BLM and Forest Service offices with duties for administering geothermal

activities on NFS lands will have joint access to spatial data and mapping capabilities for geothermal leases, permits, and operations. Such information and data will be capable of integration with data and mapping capabilities for other resources. Each agency will create, update, and modify data as necessary for accuracy, on its respective lands, but will have read-only access to the other agency's data. The BLM is responsible for subsurface geothermal data. The scope and obligations under this provision are subject to change, pending finalization and testing of the system and further agreements upon completion of the improved system.

- F. Training - The BLM and Forest Service agree to provide joint training opportunities for agency employees regarding lease processing, approval of geothermal operations, inspection and compliance, and reclamation. The BLM will provide designated Forest Service staff with the appropriate level of training and access to the BLM's geothermal data tracking and retrieval systems including the Mineral & Land Records System (MLRS), the National Fluids Lease Sale System (NFLSS) when available, and the Geothermal Resources Automated Support System (GRASS) or successor system.

#### IV. STATEMENT OF MUTUAL BENEFITS AND INTERESTS

The BLM and Forest Service share responsibilities for administering geothermal activities on NFS lands. The BLM and Forest Service will collaborate as appropriate in developing and applying consistent administrative practices that promote use of the nation's geothermal energy resources. The BLM and the Forest Service will each benefit from clear division of leadership responsibilities, which will contribute to enhancement of efficiencies in all the administrative processes subject to the MOU. Nothing in this MOU prohibits either party from participating as a cooperating agency or joint lead with the other party. Nothing in this MOU adds or subtracts from the parties' respective administrative roles and responsibilities, delineated in statutes and regulations, and summarized in this MOU.

#### V. AUTHORITIES

The primary authorities for this MOU are Section 222 and Section 225 of the Energy Policy Act of 2005:

- A. Energy Policy Act of 2005 (119 Stat. 665, Pub. L. No. 109-58, Title II, Subtitle B, August 8, 2005) §§ 222 and 225.

Other authorities for entering into this MOU and the roles and responsibilities that each agency will undertake are:

- B. Energy Act of 2020, 43 U.S.C. §§ 3001-3005, included in the 2021 Appropriations Act (134 Stat. 2513, Pub. L. No. 116-260, Div. Z, Title III, Subtitle B, §§ 3101-3105, December 27, 2020).
- C. Geothermal Steam Act of 1970, as amended (84 Stat. 1566; 30 U.S.C. §§ 1001-1027).
- D. Energy Security Act (94 Stat. 611, 42 U.S.C. §§ 8001 note, 8854-8855).

- E. Mineral Leasing Act of 1920, as amended (30 U.S.C. § 226-3).
- F. National Environmental Policy Act of 1969 (83 Stat. 852; 42 U.S.C. §§ 4321-4347).
- G. National Forest Management Act of 1976 (90 Stat. 2949).
- H. Organic Administration Act of 1897 (16 U.S.C. §§ 551); and
- I. Federal Land Policy and Management Act of 1976 (90 Stat. 2743, 43 U.S.C. §§ 1701-1782).

## VI. ROLES AND RESPONSIBILITIES PURSUANT TO THIS AGREEMENT

- A. Administration of geothermal activities on NFS lands involves decision-making at multiple stages which require coordination between the agencies. The BLM and the Forest Service agree to coordinate in achieving these activities, as follows:
  - 1. Land management planning efforts to ensure areas with high geothermal resource potential on NFS lands are considered.
  - 2. Environmental analysis supporting Forest Service pre-leasing consent decisions and development of lease stipulations.
  - 3. BLM lease issuance.
  - 4. Permitting (use authorizations) of exploration activities (does not require a lease) and development of Conditions of Approval (COAs)
    - a. Includes geophysical and geochemical surveys, as well as drilling of temperature gradient wells not intended to contact the geothermal resource (considered surface use--this is the reason no lease is required).
    - b. May be proposed at the pre-leasing stage or on lands leased to another party.
  - 5. Post-lease drilling into the resource for direct testing and resource confirmation.
  - 6. Development and utilization activities and operations.
  - 7. Well abandonment procedures and reclamation activities, including bond release; and
  - 8. Inspection and enforcement (compliance).

The lead agency at each decision stage will ensure compliance with NEPA and other requirements by preparing analysis documentation as appropriate, as well as engaging in tribal consultation and other required consultations, and directing that any required studies be conducted in accordance with applicable statutes and associated agency regulations and policies (e.g., Executive Order 13175, Consultation and Coordination With Indian Tribal Governments (65 CFR 67249; November 6, 2000)); other applicable laws such as the authorities cited in section V, the Endangered Species Act (ESA), National Forest Management Act (NFMA), Section 106 of the National Historic Preservation Act (NHPA), and the Clean Water Act (CWA); and other departmental and agency policy.

The agencies agree to cooperate on all environmental analyses in support of geothermal activity on NFS lands. In such cases where both parties have decision obligations, the parties may agree to prepare a joint NEPA document where doing so would gain efficiencies. Each agency must prepare its own decision document. Engaging in joint environmental review processes may succeed in streamlining at the lease issuance stage, as well as for permit-level activities.

Local agency offices often develop MOUs to provide clarification of the specific roles and responsibilities for analysis of individual geothermal projects. The terms of such local or project-specific MOUs govern and may differ from the terms of this programmatic MOU upon review and approval of the Region and State Office.

EXHIBIT TABLE. The attached Exhibit Table is part of this MOU and provides specific designations of roles or procedures detailing the agreed-upon responsibilities of each agency, and the actions necessary to implement provisions of this MOU.

B. BLM Responsibilities under this MOU:

1. The BLM issues and administers leases for geothermal resources on NFS lands only after receiving notification of formal consent and associated supporting documentation from the Forest Service to lease specific lands. The BLM will comply with its own pre-leasing NEPA obligations, which may include adopting, or adopting and augmenting, the Forest Service pre-leasing analysis with its own decision document. Lease provisions as finalized by the BLM will include any terms and conditions (i.e., stipulations) of consent required by the Forest Service to protect, conserve, and sustain other resources and uses administered by the Forest Service on lands to be leased. The BLM may also add its own stipulations as appropriate.
2. Once a Federal lease is issued on NFS lands, the BLM has the responsibility and authority to approve and regulate permits for all on-lease surface-disturbing operations and activities associated with geothermal exploration, bonding, resource drilling, development, utilization, abandonment, and reclamation of geothermal resources proposed by the lessee or its operator, as well as the downhole engineering for all drilling activities.
3. This means that the BLM is responsible for preparing the environmental review and permit decision for both the Operations Plan (for surface use activities) and the downhole Drilling Program components of a Geothermal Drilling Permit (GDP) application, as well as site licenses and/or utilization permits to be issued by the BLM. The BLM consults with and considers any Forest Service recommendations for project level COAs on leased lands. The BLM makes the final decision whether, and under what conditions, to approve permits proposed by the lessee.
4. The BLM acts as a cooperating agency in the preparation of NEPA analysis for any leasing consent or project level authorizations for which the Forest Service has jurisdiction, as described in this section.

C. Forest Service Responsibilities under this MOU:

1. The Forest Service authorizes geophysical prospecting and the drilling of temperature gradient wells (i.e., geothermal exploration operations) on unleased NFS lands, and on leased NFS lands when proposed by a party other than the lessee under the special use permitting process, or under a future joint application form for geothermal exploration activities (in development). The Forest Service may request expert assistance from the BLM on drilling plans and other downhole engineering issues, consistent with applicable guidance.
2. The Forest Service decides whether, and under what terms and conditions (i.e., stipulations), to consent to or deny leasing on NFS lands for geothermal exploration and development before the BLM may offer or issue leases for those lands.
3. Once a lease is issued, the Forest Service acts as a cooperating agency in the preparation of NEPA analysis for permitting of on-lease activities conducted by the lessee. In this role, the Forest Service provides interdisciplinary knowledge and information regarding the existing resource values and their uses, and the effects of exploration and lease development. In consultation with the BLM, the Forest Service provides recommendations for COAs for permits issued by the BLM regarding the use of NFS lands and mitigation of impacts, to meet forest management goals and conditions.
4. The Forest Service approves and issues permits for off-lease ancillary activities and facilities associated with on-lease geothermal exploration and development or connected actions pursuant to the agency's special use regulations. For example, the Forest Service authorizes and issues off-lease site licenses for facilities proposed on NFS lands.
5. The Forest Service conducts any environmental reviews, studies, or consultations related to the authorizations under its jurisdiction and described in this section, with BLM as a cooperating agency, for temperature gradient wells, geophysical exploration or other surveys, leasing consent decisions, and special use authorizations for off-lease ancillary activities or connected actions.

## VII. FURTHER UNDERSTANDINGS AND AGREEMENTS

- A. Freedom of Information Act (FOIA) – Any information furnished to the BLM and Forest Service under this instrument is subject to the Freedom of Information Act (5 U.S.C. 552), except as may be withheld under any applicable FOIA exemption.
- B. Participation in similar activities – This instrument in no way restricts the BLM or Forest Service from participating in similar activities with other public or private agencies, organizations, and individuals.
- C. Responsibilities of parties – The BLM and the Forest Service and their respective offices will handle their own activities and use their own resources, including the expenditures of their own funds, in pursuing these objectives. Each party will carry out its separate activities in a coordinated and mutually beneficial manner.
- D. Supplemental agreements –

1. Subsequent to the signing of this MOU, subordinate Federal or state interagency MOUs or agreements may be needed to define or clarify more specific interagency relationships, or to transfer funds from the BLM or the Forest Service to other state or Federal agencies that may be in need of resources to complete dependent studies, consultations, or analysis necessary to accomplish the objectives in this MOU, as appropriate and consistent with relevant authority.
  2. Individual BLM and Forest Service offices are encouraged to develop local or site-specific MOUs or agreements regarding discrete projects. Such agreements should be generally consistent with this programmatic MOU but may differ in details as appropriate to effectuate the purposes of this MOU in light of local circumstances.
- E. No private right of action; Limited applicability – This MOU is not intended to and does not create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a person against the United States, its agencies, its officers, or any other person. This MOU is a policy document that does not direct or apply to any person who is not an officer, employee, or contractor of the signatory parties, and should not be construed as a regulation.
- F. Non-fund obligating document – Nothing in this MOU requires either the BLM or the Forest Service to obligate or transfer any funds. Specific work projects or activities that involve the transfer of funds, services, or property among the various agencies and offices of the BLM and Forest Service will require execution of separate agreements and be contingent upon the availability of appropriated funds. Such activities must be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Negotiation, execution, and administration of each such agreement must comply with all applicable statutes and regulations.

Principal BLM Contacts:

BLM Program Contact	BLM Administrative Contact
Lorenzo Trimble Geothermal Program Lead, Department of the Interior, Bureau of Land Management 1340 Financial Blvd. Reno, NV 89502 <b>Telephone:</b> 775-224-0267 <b>Email:</b> ltrimble@blm.gov	David Rosenkrance Assistant Director for Energy, Minerals, and Realty Management Department of the Interior, Bureau of Land Management 1849 C Street NW, MS 5613 Washington, DC 20240 <b>Telephone:</b> 202-891-8859 <b>Email:</b> dprosenkrance@blm.gov

Principal Forest Service Contacts:

Forest Service Program Manager	Forest Service Administrative Contact
Jeff Salow Geothermal Program Manager, Minerals and Geology Management USDA Forest Service 599 West Price River Dr. Price, UT 84526 <b>Telephone:</b> 435-299-0561 <b>Email:</b> jeffrey.salow@usda.gov	Elrand Denson Director, Lands, Minerals and Geology Management USDA Forest Service 1400 Independence Ave. SW Washington, DC 20250 <b>Telephone:</b> 202-644-5974 <b>Email:</b> elrand.denson@usda.gov

VIII. COMMENCEMENT/EXPIRATION/TERMINATION AND MODIFICATION

This MOU is executed as of the date of the last signature and is effective for ten years through 2035 at which time it will expire, unless renewed.

The MOU may be renewed upon mutual agreement.

Either agency may terminate this agreement in whole, or in part, at any time before the date of expiration with a 60-day written notice to the other agency.

Modifications of this MOU may be made by mutual consent of the two agencies, by the issuance of a written modification signed and dated by all properly authorized signatory officials, prior to any changes going into effect. Requests for modification should be made in writing, not less than 30 days prior to implementation of the requested change. Neither agency is obligated to fund any changes not properly approved in advance.

IX. NOTICES

Any inter-agency communications affecting the operations covered by this MOU should be conveyed in writing and delivered in person, or by mail, or electronically by e-mail or fax to the following officials:

- A. To the Forest Service Geothermal Program Manager, at the address(es) specified in this MOU.
- B. To the BLM Geothermal Program Lead, at the address(es) specified in this MOU.

Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

#### X. DISPUTE RESOLUTION

If a dispute arises under this MOU that is not resolved informally between the BLM and Forest Service, then either agency may pursue the following dispute resolution procedure:

- A. The agency that seeks resolution will provide a written statement of its dispute, along with any rationale or supporting documents, to the other agency. The agencies will engage in discussions in an attempt to arrive at a consensus and resolve the dispute.
- B. If no resolution is reached within thirty (30) calendar days of receipt of the statement of dispute, then the dispute may be elevated to the principal contacts for the respective agencies noted above in section VII. The principal contacts for the agencies will engage in discussions in an attempt to arrive at a consensus. If consensus is not achieved by the principal contacts within thirty (30) calendar days of their receipt of the statement of dispute, the agencies will promptly elevate the matter to the administrative contact/headquarters-level officials, or their designees, who will resolve the matter.
- C. The time limits in the preceding paragraph may be extended on the agreement of the agencies to the dispute.

#### XI. TEXT MESSAGING WHILE DRIVING

In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All Cooperatives, their Employees, Volunteers, and Contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased, or rented vehicles, POVs or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.

**XII. AUTHORIZED REPRESENTATIVES**

By signature below, each agency certifies that the individuals listed in this document as representatives of each agency are authorized to act in their respective areas for matter related to this MOU.

ACCORDINGLY, the agencies have signed this Memorandum of Understanding on the dates set forth below, to be effective for all purposes as of the date last signed. The signatures may be executed using counterpart original documents.

In witness whereof, the agencies hereto have executed this MOU as of the last date written below.

**NADA  
CULVER** Digitally signed by NADA  
CULVER  
Date: 2025.01.17  
09:26:28 -05'00'

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PRINCIPAL DEPUTY DIRECTOR,  
BUREAU OF LAND MANAGEMENT  
Nada Wolff Culver

\_\_\_\_\_  
DATE

**GREGORY  
SMITH** Digitally signed by  
GREGORY SMITH  
Date: 2025.01.17  
12:05:01 -05'00'

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DEPUTY CHIEF,  
UNITED STATES FOREST SERVICE  
Chris French

\_\_\_\_\_  
DATE

**Burden Statement**

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0217. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

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**Exhibit Table:**  
**MOU for Geothermal Leasing and Permitting on NFS Lands**  
**Section 225 of the Energy Policy Act of 2005**  
**Amendments to the Geothermal Steam Act**

Together with the provisions of the narrative MOU document to which this table is appended, the BLM and the Forest Service will coordinate their administration responsibilities at each stage of geothermal resource leasing and development on NFS lands, including process improvements to NEPA, NHPA, and other associated analyses, studies, or consultations to support permitting decisions, for pre-leasing prospecting or exploration, leasing consent and issuance and other post-leasing project-level development proposals, as follows:

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
<b>A. Prioritize and Consider Geothermal Leasing and Development in Land and Resource Management Plans</b>				
For areas with high geothermal resource potential, all future forest plans should consider geothermal leasing and development.	FS		BLM	Under EPO Act § 222(d)(1), the agencies have responsibility and are obligated to consider geothermal leasing and development in land and resource management planning where the potential for geothermal resource potential is high.  Use information from available mineral resource assessments, including mineral potential reports, in future planning documents and decisions.
<b>B. Process for developing and reviewing EPO Act five-year geothermal leasing program</b>				
FS and BLM will coordinate with USGS, DOE, states, and other interested parties to update identification of lands having high geothermal potential through existing and new resource assessments.			BLM/ FS	Assessments to determine resource potential are normally carried out at the programmatic or landscape level by agencies such as USGS or DOE.
Coordinate to establish a 5-year program with milestones for geothermal leasing to facilitate timely leasing decisions.			BLM/ FS	EPO Act section 225(b)(2) requires a 5-year program for geothermal leasing for lands in the NFS.
Coordinate review of the schedule as new nominations are submitted or data from interested parties changes to incorporate new nominations into the 5-year plan; Coordinate to eliminate any developing backlogs of lease nominations.			BLM/ FS	It is anticipated that the 5-year plan will be adaptive and be adjusted to reflect availability of resources to respond to these changes.
Coordinate efforts to find supplemental funding for the program, such as that provided by Section 234 of the EPO Act to achieve goals set within the 5-year plan.			BLM/ FS	
Agencies to coordinate training support to implement this MOU.			BLM/ FS	BLM and FS will work together at various levels to develop and offer training in carrying out the provisions of this MOU.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
<b>C. Pre-Lease Environmental Documentation to Support FS Consent Decision and BLM Lease Issuance</b>				
Develop local or project specific MOUs, as appropriate, to identify agency roles and responsibilities.		BLM/FS		<p>Prior to initiation of the NEPA process for geothermal leasing, local agency offices may develop MOUs to provide clarification of the specific roles and responsibilities for analysis of geothermal projects. The terms of such local or project-specific MOUs govern and may differ from the terms of this programmatic MOU upon review and approval of the Region and State Office.</p> <p>The agencies will develop a schedule for completion of analysis and decision making. Timelines will be established in the local or project MOU in accordance with current directives.</p>
Upon receipt of a lease nomination or application, BLM adjudicators analyze the legal land status and agency jurisdiction over the surface and mineral estate of all lands.	BLM		(Info from FS)	<p>The BLM carries out the initial adjudication as the recipient of nominations, and the FS will participate and submit any requested information to BLM adjudicators. BLM</p> <p>Adjudicators analyze the land status for conflicts on all lands with Federal interests or jurisdiction, regardless of surface ownership, within a defined leasing area to promote consistency in geothermal resource management.</p>
FS reviews, confirms, and sends any corrections back to the BLM.	FS			Inconsistencies in the respective agencies' land status records could lead to corrections.
The FS decides whether to consent to lease issuance by the BLM of NFS lands, and under what terms and conditions, as identified in required lease stipulations.	FS		BLM	<p>Although the FS makes the consent decision, since both agencies have NEPA obligations related to deciding whether a lease should issue, preparation of joint pre-leasing analysis documents is encouraged, although each agency must prepare its own decision documents.</p> <p>Acting as joint or co-leads serves to encourage investment and participation by both agencies throughout the process.</p>
The FS will conduct the environmental reviews, consultations, and studies to support its consent to lease determination.	FS		BLM	The BLM's cooperator role includes serving on Interdisciplinary (ID) project team if requested, providing resource specialists upon request; and ensuring that the analysis contains sufficient content for the other agency (BLM here) to adopt and use to support its own decision(s) (lease issuance).
Based on FS consent, the BLM makes an independent decision whether to issue each lease. If the BLM decides to issue a lease, it must accept and attach FS stipulations on consent as special stipulations. The BLM has sole decision-making authority for split estate lands (Federal minerals/ non- Federal surface) within the boundaries of FS administrative units. No Forest Service consent is required on such lands.	BLM			The BLM may add stipulations that are more environmentally protective, as necessary, and appropriate to protect other resource values and uses but may not disregard or alter FS stipulations.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
The BLM serves as a joint lead or cooperating agency and adopts or augments the FS consent analysis to support the BLM's leasing decision.		BLM/ FS		The agencies have a mutual responsibility for ensuring that the analysis is sufficient for each agency to support its own decision. Respective responsibilities should be agreed upon in the local-level MOU.
Where there is an existing environmental analysis, FS reviews and documents NEPA adequacy and plan consistency, and issues its consent decision when existing NEPA documentation is determined to be adequate.	FS			Occasionally, the FS completes a leasing analysis for a consent decision at a larger scale than just the nominated parcels.
Where there is no existing or adequate NEPA, FS will commence the NEPA analysis for the FS consent decision. FS issues decision.	FS		BLM	Both agencies have an obligation to issue their own decision(s), whether the analysis is joint or adopted.
BLM will normally provide a reasonably foreseeable development scenario (RFD) (i.e., estimate the level of use based on resource potential including potential for direct use) upon FS request, to be used to develop alternatives as a basis for comparative impacts analysis in plan or programmatic NEPA documents.	BLM		(Info from FS)	The RFD analysis developed by the BLM will follow the appropriate guidance. FS may need to provide information on direction from the land management plan, surface use (roads, etc.) and constraints for inclusion or consideration in the RFD. RFD may be developed by other parties. If so, the BLM should provide final technical review based on its expertise in resource potential and mineral development.
Cooperator to appoint a specialist(s) to participate as a member of the lead agency's Interdisciplinary Team in the preparation, and completion of NEPA documents as determined to be necessary by the deciding official(s).		BLM/ FS		BLM will appoint geothermal specialist(s) and provide informal training on geothermal operations, their potential impacts on the environment, the effect of mitigation on operations, mitigation development, and stipulation policy, upon request and in cooperation with the FS to support the FS analysis at the consent-to-lease stage.
The agencies will cooperate to determine the issues and alternatives to include in the analysis, based on the scoping process or other public involvement process.  The lead agency will coordinate review of public and agency comments with assistance of the co-lead.		BLM/ FS		The public involvement activities will satisfy the requirements of both agencies.  Local MOUs should consider whether the agencies will jointly publish a Federal Register Notice or other public notice to initiate scoping and whether the agencies should hold joint scoping meetings.
The cooperator will complete review and comment on draft and final NEPA analyses and attempt to provide comments within a manner that meets the agreed upon timeline.	BLM/ FS		BLM/ FS	The lead agency will forward copies of Draft and Final NEPA documents to the cooperator for review and comment upon completion.
FS to coordinate review of public and agency comments with assistance from BLM; discuss and work towards agreement on mitigations; make necessary revisions to draft NEPA documents; and prepare draft Notice (DN)/Decision Record or Record of Decision (ROD), as appropriate.	FS		BLM	

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
Upon receipt of FS consent decision and stipulations, BLM to accept all FS imposed stipulations and make an independent decision about whether to issue each lease, and whether additional protective stipulations are warranted.	BLM			BLM may augment a FS analysis prior to adopting it or prepare its own EA/EIS to support lease issuance under BLM requirements.
The agencies agree to keep one another informed of objections or appeals on their respective decisions; along with the outcomes of any resolution. The consent to lease (or declining to lease, with reasons) decision letter, NEPA documents, and signed FS version of DN/ROD (including any stipulations on use determined to be necessary and appropriate to be attached to and made part of the lease) should be transmitted to the BLM after any objections or administrative reviews are resolved.		BLM/ FS		
<b>D. Additional Coordination Procedures Specific to Competitive and Noncompetitive Leasing.</b>				
Upon receipt of competitive and noncompetitive lease parcel nominations/applications on NFS lands, the applicable BLM SO to coordinate with the respective FS Regional Office and agree on a timeline for FS process for consent to lease. BLM to send a written request to the FS for consent to lease specific parcels.	BLM			The Forest Service will advise the applicable BLM State Office where to send the lease application package.
<b>E. Additional Coordination Procedures Specific to Direct Use Leasing.</b>				
The lands may be made available only subject to an exclusive direct use limitation (to be determined by the BLM based upon the FS consent to lease issuance and recommendation that the lands are appropriate for direct use operations, without sale, for purposes other than commercial generation of electricity). (BLM IM 2009-022; 43 CFR 3205.6; 43 CFR 3205.12)	BLM		FS	FS to consult with and provide information to BLM for exclusive direct use limitation determinations.  For example, where a power plant would be unsuitable in that location due to unacceptable impacts on other resources uses or users.
In the case of an application for direct use leasing, the BLM to ensure the lands meet the requirements at 43 CFR 3205.6 by following the procedures at 43 CFR 3205.12.	BLM			This includes a BLM determination about whether competitive interest in the parcel for direct use exists via a 90-day notice and comment process.  The process with the FS will otherwise remain the same.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
<b>F. Leasing and Surface Use Concerning Lands subject to Special Acts, Orders or Other Legislation</b>				
Review relevant authorities for provisions about the administration of lands under the particular special designation to determine surface use administration, terms and conditions.		BLM/ FS		The BLM and the FS to coordinate and determine applicable management prescriptions and processes. For example, pursuant to 104 Stat. 2288; Pub. L. No. 101-522 establishing the Newberry National Volcanic Monument, the Forest Service approves surface uses within the Newberry National Volcanic Monument, Oregon. In addition, certain leased lands where leases are relinquished, expired, or terminated “shall become part of the Monument and shall be administered under this Act.”
<b>G. Exploration Permitting Proposed on Unleased NFS Lands or On-Lease by an Applicant Who is not the Lessee</b>				
<p>FS to receive and review proposals for geophysical prospecting or exploration activities including temperature gradient well (TGW) drilling proposed on unleased lands or on-lease by an entity other than the lessee.</p> <p>FS to ensure that proposed exploration operations do not interfere with lessee’s existing approved operations and facilities in consultation with the BLM.</p> <p>See BLM Form No. 3200-9, Notice of Intent to Conduct Geothermal Exploration Activities, or the applicant should submit a FS special use permit application form (SF-299).</p>	FS		BLM	<p>Exploration operations, as defined in the BLM regulations at 43 CFR 3200.1, may include proposals for drilling temperature gradient holes that do not directly contact, or provide direct evidence of, the presence of geothermal resources, as well as geophysical investigations.</p> <p>A lease is required for any drilling intended to reach and directly test geothermal resources, such as resource confirmation drilling. GDPs are approved by BLM under the 43 CFR 3260 regulations (not Form No. 3200-9).</p>
FS conducts appropriate environmental analysis and consultations. FS decision would be to issue a special use authorization for the activity. FS will decide whether to approve; approve with Conditions of Approval (COAs); or deny exploration proposals (NOIs).	FS		BLM	<p>For temperature gradient wells (TGWs), FS may consult with BLM regarding need for any BLM authorizations.</p> <p>For TGWs, FS will follow policy and guidance in FSM 2860 and its special use regulations.</p> <p>FS is responsible for approving permit and conducting NEPA but will consult with BLM, and BLM may cooperate, especially for downhole engineering or other technical expertise regarding downhole issues/well design considerations.</p>
Inspection/compliance.	FS		BLM	FS to conduct inspections if needed to ensure compliance with permit terms during exploration activities (FS for surface resources; FS may seek BLM guidance or participation for downhole inspections).
Bonding.	FS			FS to calculate appropriate reclamation bond.
For TGW: Bonding for downhole issues.	FS		BLM	BLM may assist FS by reviewing down-hole plugging and abandonment, and performance bond issues if necessary (FS will ensure compliance with state plugging and abandonment requirements).

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
Reclamation completion/bond release.	FS		BLM	FS to determine final reclamation completion and release bond after coordination with state government. BLM may review to confirm that plugging and abandonment requirements have been met.
<b>H. Exploration Permitting On-Lease Proposed by Lessee or Operator</b>				
BLM to review and accept exploration proposals (Notices of Intent to Conduct Geothermal Exploration Activities) when complete and initiate environmental analysis or other NEPA compliance as necessary.	BLM		FS	Prior to formal acceptance of the proposal as complete, BLM to consult with FS regarding compliance with lease stipulations and other surface resource concerns, and identify needs for FS special use authorizations for off-lease ancillary facilities.
BLM is lead for conducting appropriate environmental analysis and consultation. Where the proposal includes off-lease or connected actions, a joint NEPA process should be considered.	BLM		FS	The proposal from the applicant may include a request to consider waiver, exceptions or modifications of lease stipulations. BLM consults with the FS and obtains consent to approve a waiver, exception, or modification where necessary and appropriate.  BLM will consult with and consider any FS-recommended COAs to the permit (NOI) approval.
BLM has responsibility for analysis and consultations for both surface use and subsurface issues.	BLM		FS	FS will act as cooperating agency and recommend COAs for use of NFS lands, where FS does not have a decision.
Permit issuance/approval: BLM to determine final COAs for surface and subsurface resources to permits after consulting FS.	BLM		FS	BLM will consult if any FS-recommended COAs are not imposed by the BLM. The agencies agree to consult with each other and identify mutually agreeable solutions.
FS approves off-lease ancillary uses or connected actions under a special use authorization.	FS		BLM	FS to coordinate timing of approvals with the BLM decisions.
Inspection/compliance.	BLM		FS	BLM and/or FS conduct inspections and ensure compliance with approvals during exploration activities as outlined in Mitigation, Monitoring, and Reporting Plan and approved permits.
Reclamation.	BLM		FS	BLM will confirm with FS that reclamation activities meet the requirements of both agencies and will consult with the FS to ensure conformance with the land management plan. The BLM and FS will consult with each other to ensure reclamation activities are complete and were undertaken in compliance with the terms of the approved operating plan as it pertains to reclamation.
Bonding, reclamation completion and bond release for off-lease ancillary uses.	FS			FS to calculate bond and determine bond release for off-lease activities or facilities that it authorizes under a special use permit.
Bonding, reclamation completion and bond release for on-lease exploration activities conducted by lessee.	BLM		FS	BLM to calculate appropriate reclamation bond and consult with FS for bond adequacy for surface resource reclamation.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
<b>I. On-Lease Permitting for Geothermal Drilling Permits for Resource Confirmation, Testing, Production, Injection and Utilization Plan Authorizations, Site Licenses, Commercial Use Permits, and Facility Construction Permits</b>				
Review and accept GDP application proposals when complete and initiate environmental analysis as necessary.	BLM		FS	Prior to formal acceptance of proposal applications as complete, BLM will consult with FS with regard to compliance with lease stipulations and other resource concerns; identify needs for FS special use authorizations for off-lease ancillary facilities.
BLM to conduct appropriate environmental analysis and consultation; Where the proposal includes off-lease connected actions, a joint NEPA process should be considered.	BLM	BLM/FS	FS	BLM has responsibility for analysis and consultations for both surface use and subsurface issues. FS will act as cooperating agency and recommend COAs for use of NFS lands. The proposal from the applicant may include a request to consider waiver, exceptions or modifications of lease stipulations. BLM consults with the FS and obtains consent to approve a waiver, exception, or modification where necessary and appropriate. BLM will consult with and consider any FS- proposed COAs to the GDP approval.
FS approves off-lease ancillary uses or connected actions under a special use authorization.	FS		BLM	FS to coordinate timing of approvals with the BLM decisions.
The BLM/FS ensures the process used satisfies requirements of both agencies for scoping, noticing, public comment, draft and final analysis documents, supporting reports, consultation, and decision and appeal/objection procedures.	BLM	BLM/FS	FS	
BLM makes decisions about whether and under what COAs to approve permits, after consulting with the FS. This applies to approval of drilling (Operations Plans), on-lease Utilization Plans, Facility Construction Permits, Commercial Use permits, and Site Licenses for on-lease facilities on Federal lands.	BLM		FS	The BLM will normally adopt COAs proposed by the Forest Service for permits or authorizations issued by the BLM; where there are concerns or disagreements over COAs or implementation of FS lease stipulations, the agencies will consult with each other further to come to a mutually agreeable solution. Where both agencies have decisions to make, BLM and FS to issue separate decisions as necessary, even where NEPA is conducted jointly or when one agency adopts the other agency's NEPA document.
BLM and FS to issue separate decisions where each agency has a decision space, even if NEPA is conducted jointly (i.e., there are both on-lease and off-lease activities proposed). A joint decision document may be considered.	BLM/FS			Even when NEPA is conducted jointly or where one agency adopts the other agency's NEPA document, each agency must prepare its own decision document. FS decisions would include issuing special use authorizations for off-lease ancillary activities.
For site licenses and site license renewals for on-lease facilities, the BLM must consult with and obtain concurrence from the FS before it issues the license.	BLM		FS	Does not require a FS NEPA decision, however, emphasizes need for cooperating agency participation. Corresponding approvals of utilization plans, facility construction permits and commercial use permits on-lease require consultation with the FS.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
BLM will consult with the FS when Sundry Notices involve changes to surface use.	BLM		FS	The FS may recommend COAs for approvals that involve changes to surface use.
Inspection/compliance.	BLM		FS	BLM and/or FS conduct inspections and ensure compliance with approvals during exploration activities as outlined in Mitigation, Monitoring, and Reporting Plan and approved permits. Details of responsibilities to be shared will be outlined in Mitigation, Monitoring, and Reporting Plan as described in the decision document and approved permits.
Inspection/compliance. BLM may assist and/or train Forest Service geothermal specialists, as necessary, to perform surface-use compliance inspections on NFS lands.	BLM	BLM/FS	FS	FS to conduct compliance inspections or to accompany and aid the BLM in conducting joint inspections upon request, and will document, notify and refer any violations to the BLM or other agency for enforcement as appropriate.
Reclamation.	BLM		FS	BLM will confirm with FS that reclamation activities meet the requirements of both agencies and will consult with the FS to ensure conformance with the land management plan. The BLM and FS will consult with each other to ensure reclamation activities are complete and were undertaken in compliance with the terms of the approved operating plan as it pertains to reclamation.
Bonding, reclamation completion and bond release for on-lease exploration activities conducted by lessee.	BLM		FS	BLM to calculate appropriate reclamation bond and consult with FS for bond adequacy for surface resource reclamation.
Bonding, reclamation completion and bond release for off-lease ancillary uses.	FS			FS to calculate and determine bond release for off-lease activities or facilities that it authorizes under a special use permit.
Post-utilization proposals for existing wells or facilities; determine if action fits within existing decisions.	BLM			Use existing analyses/decisions where appropriate.
Site License renewal.	BLM		FS	Consult with and obtain concurrence from FS prior to renewal of license to operate the plant. The FS may require additional terms and conditions.
<b>J. Site License Issuance and Renewal for Off-lease Utilization Facilities</b>				
The SMA (FS) approves and issues the site license for facilities proposed on unleased Federal lands.	FS		BLM	Since the site license is a prerequisite for allowing construction of a utilization facility to begin (together with approval by BLM of the Utilization Plan and Facility Construction permit), this decision emphasizes the need for cooperation between the agencies.
<b>K. Lease Maintenance</b>				
Lease readjustments under 43 CFR 3210.14; 30 USC 1007(c)	BLM		FS	BLM will ask the FS to review the related lease terms and conditions, and propose readjustments. Where amended terms may affect use, protection or restoration of the lands, the FS must approve the readjusted terms and conditions. The agencies will confer to agree on readjusted terms. FS comments are date-sensitive due to lease anniversary date.

Action	Responsible Agency			Remarks
	Lead	Joint or co-leads	Cooperator	
Lease Extension	BLM		FS	BLM will consult with FS and consider any FS suggestions prior to renewal of license to operate the plant.
Lease Renewals	BLM		FS	BLM will consult with FS and consider any FS suggestions prior to renewal of license to operate the plant.
<b>L. Interagency Online Geothermal Well and Project Permit/Report Processing System; Support</b>				
Lead development of data retrieval systems Geothermal Resource Automated Support System (GRASS) or a successor system, and coordinate with the FS to ensure FS personnel are granted agreed upon read/write access of data for NFS lands.	BLM		(Info to/from FS)	FS will participate to ensure FS concerns/issues are addressed, and will ensure that any information or data for which the FS is responsible remains accurate and current.
Establish infrastructure, protocols, and procedures to meet the security requirements as determined by BLM for access to joint data retrieval systems and geographic information systems by designated FS staff.	FS			FS to ensure designated employees with access follow the BLM computer security protocols.