

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Twin Falls District
Burley Field Office
15 East 200 South
Burley, ID 83318

SCOPING/INFORMATION PACKAGE

**Walker Ranch Energy Geothermal Development Project
Environmental Assessment - DOI-BLM-ID-T020-2015-0016-EA
Walker Ranch Energy, LLC**

**Utilization Plan and 13 Geothermal Drilling Permit Applications
Federal Geothermal Leases IDI-37087, IDI-35789, IDI-35786, IDI-37027 and IDI-36373**

The information in this package summarizes a Bureau of Land Management (BLM), Burley Field Office action in response to submittal of a Utilization Plan and 13 Geothermal Drilling Permit (GDP) applications near Bridge, Idaho in the Raft River Valley, submitted by Walker Ranch Energy, LLC (WRE). The GDP applications consist of applications to drill, an operations plan detailing all surface operations, and a drill plan that describes all subsurface operations. Federal actions must be analyzed in accordance with the National Environmental Policy Act (NEPA) and other relevant Federal and state laws and regulations to determine potential environmental consequences.

The purpose of this scoping document is to inform affected and interested parties of the Proposed Action and to solicit comments regarding the project to assist with the NEPA review of the proposal. Analysis of the proposal is ongoing, and will be documented in an Environmental Assessment (EA) with an estimated completion date of October 2015. Comments received in response to this solicitation will be used to identify potential environmental issues related to the Proposed Action and to identify alternatives to the Proposed Action that meet the purpose of and need for the proposed project.

Background

In February 2009, Agua Caliente, LLC submitted a drilling program, operations plan and five (5) GDP applications (GDPs) to the BLM, Burley Field Office to conduct deep exploratory drilling on Federal geothermal lease IDI-35786, located in Cassia County, Idaho. An Environmental Assessment (EA) titled, "Raft River Geothermal Drilling Project" (No. ID-220-2009-EA-3709) was prepared and a finding of no significant impact (FONSI) determination was made. The decision record for the project was signed January 22, 2010. Agua Caliente, LLC later transferred lease IDI-35786 and the five GDPs to WRE; the lease was assigned number IDI-37087.

The five GDPs approved in 2010 were issued for two years. In 2012 the five GDPs were extended for two years, and expired in January 2014.

On June 23, 2014, WRE submitted five new GDP applications for full sized wells, and one GDP application for an exploratory "slim hole" (and a related operations plan and drilling program) to conduct drilling operations in the exact same locations as the five permits that were issued in 2010. The BLM prepared two separate Determinations of NEPA Adequacy (DNAs), the first for the slim hole GDP, and the second for the five full sized GDP applications. The GDPs for those wells as

described in the DNAs (with the Conditions of Approval) were approved on August 8, 2014 (slimhole) and January 8, 2015 (full size GDPs).

Proposed Action

WRE is proposing to construct, operate and maintain the Walker Ranch Geothermal Development Project (Project) within federal geothermal leases IDI-35789, IDI-35786, IDI-37027, IDI-37087 and IDI-36373, and on private lands in Cassia County, Idaho (see Map 1).

Public Land Construction Activities - The public land portions of the Project would be conducted on public land managed by the BLM located within Boise Meridian, T. 15 S., R. 26 E., all or portions of Sections 11-14, 21-23, 26 and 27; and within T. 15 S., R. 27 E., all or portions of Sections 29-32. Activities proposed on public land include the construction and operation of geothermal production and injection well pads and wells, production and injection pipelines, power lines, and access roads.

Production and Injection Wells - Within the federal geothermal leases, WRE proposes up to 18 production and injection wells could be constructed, although fewer wells may be sufficient to complete the project as currently planned. These are comprised of five previously approved sites as identified in the Raft River Geothermal Drilling Project Environmental Assessment and 13 newly proposed sites (see Map 2).

Each of the 13 new well drill pads would be approximately 450 feet x 450 feet, or approximately 4.6 acres per pad. Once drilling is complete, the shoulders of the pad would be reclaimed, but most of the pad and sump would be kept clear and intact for ongoing operations and the potential need to work on or re-drill the well. Permanent surface disturbance related to well pad operation is assumed to be 4.0 acres per pad. Should all 13 wells be constructed, short term and long term surface disturbance acreages associated with the drilling of geothermal production and injection wells on public lands managed by the BLM would be 59.8 acres and 52.0 acres, respectively.

Access Road Construction and Improvement - The project is traversed by numerous existing roads, however up to approximately 3.2 miles of new access roads would be constructed using a dozer and/or road grader. The total estimated area of surface disturbance required for new access road construction would be approximately 7.6 acres. Also, up to 3.8 miles of existing access roads may need to be improved (i.e. widened, graded or bladed) to maintain a drivable roadbed. The total area of surface disturbance associated with road improvement activities would be 2.3 acres.

Production and Injection Pipelines - Geothermal production pipelines deliver the geothermal fluid from each of the production wells to the power plant. Geothermal injection pipelines distribute the used and cooled geothermal fluid from the power plant to the injection wells. Approximately 12.75 miles of production and injection pipeline are proposed to be constructed on public lands managed by the BLM. A 50-foot wide construction corridor would be needed along the length of the pipeline. Long term disturbance associated with pipeline operation assumes a 20-foot width along the length of the pipeline, as some of the short term construction disturbance would be reclaimed following completion of construction. Short and long term surface disturbance acreages associated with production and injection pipelines on public lands managed by the BLM would be 77.0 acres and 31.0 acres, respectively.

Power Lines – Each of the production wells would be equipped with a line shaft pump to bring the geothermal fluid to the surface under pressure. The electricity to power the pump motors would be supplied via overhead electric power lines installed from the power plant to the wellheads along the connecting pipelines or roads. Power poles would be designed for raptor habitat. It is currently expected that 11 of the BLM wells would be production wells, and seven of the BLM wells would be injection wells. However, due to variability within the field and unexpected circumstances, some of the wells may be re-categorized after they are drilled and tested. Due to this variability, total length of constructed overhead power lines would be a minimum of 6.5 miles, with an additional 6.3 miles to be constructed if needed. Total length of constructed overhead power lines would likely be around 6.6 miles. All overhead power line would be constructed within pipeline construction corridors.

Water Requirement and Source - Water for the project would be obtained from a well and agricultural water rights Agua Caliente, LLC has on land that it owns adjacent to and east of lease IDI-35786, in T. 15 S., R. 26 E., Section 24. A total of up to 1.5 acre-feet (~ 500,000 gallons) may be used in the construction and drilling of any single well. If the drill site is close enough to the water source, the water would be pumped to the rig via temporary pipeline on the ground. Otherwise, the water would be hauled by truck on an as-needed basis. Water required for construction of the remainder of the project (including earthwork, erosion control and concrete) would be substantially less than the water required for well drilling operations.

Aggregate - As much as possible, native materials (derived from grading to balance cut and fill) would be used for site and road building materials. Any additional gravel required will be obtained commercially from a local provider. In addition to the approximately 45,000 cubic yards of surfacing material which may be needed for well site and access road construction, approximately 160,000 cubic yards may be needed for construction of the remainder of the project.

Private Land Construction Activities - The private land portions of the Project are located in Boise Meridian, T. 15 S., R. 26 E., Section 13, and T. 15 S., R. 27 E., all or portions of Sections 18, 19, and 29-32. Activities proposed on private land would include the construction and operation of geothermal production and injection well pads and wells, geothermal production and injection pipelines, access roads and a geothermal power plant. All construction procedures and surface disturbance assumptions would be similar to that described for the public land activities.

Production and Injection Wells - WRE also anticipates that up to eight new wells would also be drilled on private lands. This may result in fewer wells on BLM lands. Should all eight wells be constructed, short term and long term surface disturbance acreages associated with geothermal production and injection wells on private lands would be 36.8 acres and 32.0 acres, respectively.

Production and Injection Pipelines - Up to 9.1 miles of production and injection pipelines would be constructed on private lands. Short and long term surface disturbance acreages associated with production and injection pipelines on private lands would be 55.0 acres and 22.0 acres, respectively.

Access Roads - For wells on private lands, it is expected that the total amount of new ground disturbance associated with constructing or improving access roads will be less than five miles in length, or less than approximately 12.0 acres of new disturbance. Existing roads will be used as much as possible.

Power Plant - WRE would build and operate an approximately 25 MW (net), 32 MW (gross), binary geothermal power plant on private lands on an approximately 20 acre site in Section 13 and/or 14, T.15S., R.26E.

Surface Reclamation - The estimated life of the Project is 40 years. A general description of Project reclamation activities is provided below.

Interim Reclamation - After the well drilling and testing operations are completed, the liquids from the reserve pits would either naturally evaporate or be removed as may be necessary (i.e. pumped into another well) to reclaim the reserve pits. The solid contents remaining in each of the reserve pits, typically consisting of non-hazardous, non-toxic drilling mud and rock cuttings, would be tested to confirm that they are not hazardous. Typical tests may include the Toxicity Characteristic Leaching Procedure (TCLP) (EPA Method 1311), tested for heavy metals; pH (EPA method 9045D); Total Petroleum Hydrocarbons/Diesel (EPA Method 8015B); and Oil and Grease (EPA Method 413.1). If the test results indicate that these solids are non-hazardous, the solids would then be mixed with the excavated rock and soil and buried by backfilling the reserve pit.

Once drilling is complete, the shoulders of the pads could be reclaimed, but the majority of the pad would be kept clear for ongoing operations and the potential need to work on or re-drill the well. The portions of the cleared well sites not needed for operational and safety purposes would be recontoured to a final or intermediate contour that would blend with the surrounding topography as much as possible. Areas able to be reclaimed would be covered with stockpiled topsoil, ripped, tilled, or disked on contour, as necessary. Public lands managed by the BLM would be reseeded with the appropriate seed mixes.

Final Reclamation - At the end of Project operations the wells would be plugged and abandoned. Abandonment typically involves filling the well bore with clean, heavy abandonment mud and cement at specific depth intervals until the top of the cement is at ground level, which is designed to ensure that there is no inter-aquifer contamination or fluid migration. The well head (and any other equipment) would then be removed, the casing cut off well below ground surface and the hole backfilled to the surface.

Areas able to be reclaimed would be ripped, tilled, or disked and contoured, as necessary and reseeded with certified weed-free perennial grass and forb seed mixes per BLM standards.

Reclamation of the roads would include re-contouring the road back to the original contour, seeding and controlling noxious weeds. Reclamation may include other techniques to improve reclamation success, such as ripping, scarifying, replacing topsoil, pitting and mulching.

Pipeline reclamation would include placing fill in the trench, compacting the fill, re-grading cut-and-fill slopes to restore the original contour, replacing topsoil and re-vegetating in accordance with the reclamation plan.

The power plants and all other above-ground facilities and areas of surface disturbance associated with geothermal development would be removed and reclaimed. Stormwater diversion would remain in place until successful revegetation is attained.

Environmental Protection Measures

WRE would comply with all stipulations attached to federal geothermal leases IDI-35789, IDI-35786, IDI-37027, IDI-36373 and IDI-37087, and with any conditions of approval (COAs) that result from the project EA. Lease stipulations were identified through the NEPA process when the leases were issued, and are listed as an attachment to this document.

The project must comply with all state and Federal requirements. As required by CFR 3261.18, the lessee must post a bond with BLM before drilling operations begin. WRE will provide the necessary Bond or Letter of Credit after the GDP applications have been reviewed by the BLM and have notified WRE of the required dollar amounts. WRE understands that the Bond or Letter of Credit will be required to be in place before final approval of the drilling permits can be issued.

Additionally, WRE proposes the following environmental protection measures as part of the Proposed Action:

Fire Prevention and Control - All Federal, state, and county laws, ordinances, rules, and regulations, which pertain to prevention, pre-suppression, and suppression of fires, would be strictly adhered to. All personnel would be advised of their responsibilities under the applicable fire laws and regulations.

All construction and operating equipment would be equipped with applicable exhaust spark arresters. Fire extinguishers would be in all vehicles/equipment, and would be available on the site. In addition to requirements, water that is used for construction and dust control would be available for fire-fighting. Personnel would be allowed to smoke only in designated areas. A water tank would also be on-site and the water would be used to fight fires, should it be necessary to do so. The facility would also have a fire monitor on-site and would have water storage associated with the backup diesel generators which could also be used to fight fires.

Weed Control – WRE would first clear and stockpile topsoil/growth medium for use in reclamation of the site and access. This material would be placed to one side of the cleared area and the remaining material would be placed on the other side (separated). This stockpiled topsoil/growth medium would be seeded with the approved seed mix to stabilize the material from erosion and to limit the invasion of weeds. WRE would also require that the drilling rig and any construction related equipment be cleaned/washed prior to entering the site to minimize the import of weeds/seeds from previous work/projects. If weeds still invade the site, they would either be hand-cleared or sprayed utilizing a weed killer (herbicide) approved by the BLM. Finally, WRE would purchase certified weed free seeds utilized in their temporary or final reclamation seed mix.

Prevention of Soil Erosion - Prompt re-vegetation of stockpiled topsoil would assist with erosion control. In addition, prompt reclamation of the site following drilling would work as well. Placement of hay (straw bales) and erosion control silt fence(s) in low points would be utilized to collect sediment that may run off the site(s). If this proves ineffective, WRE would investigate hydro-mulching as a way to stabilize exposed soils.

Surface and Groundwater Protection - Geothermal fluids would not be discharged to the ground under normal operating conditions. Accidental discharges of geothermal fluids are unlikely because of frequent inspections, ultrasonic testing of the pipeline, flow and pressure monitoring and well pump

and pipeline valve shutdown features. Further, geothermal wells are cased to prevent co-mingling of the geothermal fluids with underground aquifers. Minor discharges of geothermal fluids may occur during testing and well start up events.

Wildlife Protection - Many disturbed areas could begin to be reclaimed almost immediately after construction is completed. Erosion control measures after construction would include revegetation and periodic maintenance. Disturbed areas that would not be used after construction would be revegetated with the proper seed mixture and planting procedures prescribed by the BLM. Any topsoil enriched in organic material may be stockpiled on previously disturbed areas and applied to enhance areas to be reclaimed by revegetation. Periodic maintenance of the power plant site would be conducted, as needed, to minimize continual erosion.

To prevent undue degradation and removal of habitat, cover and food, existing roads would be used whenever possible and cross-country travel would be restricted to designated construction areas. Speed limits of 20 - 25 mph would be observed on all unpaved roads in the project area in order to minimize dust and avoid collision and incidental death of local wildlife. Furthermore, the power plant site would be fenced to prevent wildlife from entering. Heavily travelled dirt roads may be treated with magnesium chloride solutions to control dust.

Cultural Resource Protection -

In the event of an unplanned discovery, activities associated with the undertaking within 100 meters of the discovery would be halted and the discovery would be appropriately protected, until the BLM Authorized Officer issues a Notice to Proceed (NTP).

WRE employees, contractors, and suppliers would be notified that damage to archaeological sites would be avoided, to avoid incurring penalties associated with the Native American Graves Protection and Repatriation Act. If cultural resources, Native American remains, funerary items, sacred items, or objects of cultural patrimony are discovered, WRE would cease operations in the vicinity of the discovery and ensure adequate protection to the discovery, then notify the BLM. No activity in the vicinity of the discovery would resume until WRE has been issued a NTP by the Authorized Officer.

Visual Resource Protection - The power plant, pipelines, wellheads, pump motors and motor control buildings would each be painted an appropriate "earth tone" color to blend with the area and minimize visibility. The fence constructed around each of the production well sites would also be painted an appropriate color to blend with the area.

Minimization of Air Pollution - Dust emissions would be kept to a minimum by initially only clearing and utilizing the minimum surface disturbance necessary to carry out operations. WRE also proposes to utilize road watering as the primary means of dust suppression at the site. Interim vegetation of stockpiled topsoil/growth medium would assist with minimizing fugitive dust emissions. If road watering is deemed not adequate, WRE would evaluate the utilization of clean gravel on the road surface to cut down on dust emissions.

State of the art equipment and design would be used to ensure minimal emissions of the operating fluid. The power plant would have minor air emissions during normal operation associated with the cooling tower operation. There would be no non-condensable gas emissions during normal operations.

However, small amounts of the binary working fluid would be released to the atmosphere from rotating seals and flanges and from the process to purge the buildup of air leaking into the binary turbine condenser.

Minimization of Noise Pollution - To abate noise pollution, mufflers would be used on all drilling rig engines. Each well pad may have one drilling and testing muffler or separator. Construction and drilling noise would be minimized through operational practices (best available control technology, BACT), which would avoid or minimize practices that typically generate high noise levels or distinctive noise impacts.

Minimization of Hazards to Public Health and Safety - Only authorized individuals would be allowed to access the site. Signs would be posted notifying the general public that this is a construction work site and providing contact information if they wish to contact site personnel or WRE management. WRE would also implement emergency preparedness and accident/injury guidelines.

Purpose of and Need for Proposed Action

The purpose of the project is to commercially develop the geothermal resources on BLM Federal geothermal leases held by WRE within the BLM Burley Field Office; to construct and operate a commercial geothermal power plant and well field; and to transport generated electricity from the project to a power purchaser.

The Secretary of the Interior has the authority and responsibility to lease the Federal mineral estate for geothermal development. The Secretary of the Interior has delegated this responsibility to the BLM. Under the terms of the Geothermal Steam Act and its implementing regulations (as amended and supplemented by the National Energy Policy Act of 2005, the BLM must respond to the plans and programs submitted by the lessee (or unit operator) and either approve, require modification of, or deny these applications (BLM's project need).

Preliminary Issues

The following resource issues have been identified during preliminary internal scoping as being impacted or potentially impacted by the Proposed Action. The impacts to these issues, and any other issues identified through public scoping and consultation with Tribes and government agencies will be analyzed in the EA:

Air Quality – Air quality could be impacted by emissions from the plant, emissions from construction and drilling activities, and airborne dust from construction activities. Impacts to air quality will be analyzed and COAs or modified design features would likely be employed to mitigate these impacts.

Cultural Resources – Cultural resources could be directly impacted through construction activities, however, the project area has been surveyed previously and the project has been sited to avoid previously identified cultural sites. If the project is approved, a COA would be included to protect any newly discovered cultural sites.

Hazardous and Solid Wastes – The project has potential to produce both hazardous and solid wastes. Any waste produced would be required to be disposed of in an appropriate manner, consistent with the Utilization Plan, Operations Plan, and any COAs that would be included with approval of the project.

Water Quality – There is potential for groundwater quality to be impacted. These impacts would first be mitigated through project design features, and analyzed through the EA. If design features are not sufficient to mitigate impacts, additional COAs would be included to ensure water quality.

Invasive and Non-Native Species – The Proposed Action includes ground disturbing activities, and proposes to leave bare ground exposed on portions of the well pads. These activities create suitable conditions for the spread and establishment of invasive and non-native species. Measures would be taken to minimize noxious weed establishment as stated above in the weed control section of the environmental protection measures. In addition to these measures, a COA would be included stating WRE would be responsible for the control of noxious weeds within the project area.

Fuels and Fire Management – Project construction and maintenance would result in an increase human presence, and the potential for fire starts. Construction with mechanized equipment could also increase the potential for a fire start. Mitigation identified above in the proposed environmental protection measures would be analyzed in the EA, and additional mitigation would be applied if necessary.

Geology and Mineral Resources – Geology and mineral resource would be impacted and will be analyzed in the EA.

Access On Public Lands – The Proposed Action could limit access on some public lands, impacts to public access will be analyzed and mitigated through the EA process.

Public Safety (Road Traffic) – Public safety, especially due to increased road traffic from the Proposed Action, would be analyzed in the EA. A COA regarding road safely would be included if the project is approved.

Livestock Grazing – The Proposed Action, specifically pipelines, could restrict or influence livestock movements and feeding patterns. Impacts and potential mitigation measures would be analyzed in the EA.

Recreation – Recreation in the project area could be impacted, these impacts would be analyzed in the EA and mitigated if possible.

Socio-economics – The Proposed Action is a large scale project that would result in the creation of short term and long term jobs, as well as other contributions to the economy. These impacts will be analyzed in the EA.

Soils and Vegetation – The Proposed Action includes ground disturbing activities that would create an increased risk of soil erosion, as well as short and long term removal of vegetation.

Environmental protection measures for soil erosion are discussed above in the *Prevention of Soil Erosion* section. Impacts to soils and vegetation will be analyzed and additional mitigation identified through the EA.

Visual Resources – Visual resources could be impacted if the Proposed Action is implemented. Environmental protection measures for soil erosion are discussed above in the *Visual Resource Protection* section. Impacts to visual resources from the Proposed Action will be analyzed and if necessary, additional mitigation identified through the EA process.

Wildlife – The project area contains a variety of wildlife and their habitat that could be impacted from the Proposed Action through habitat loss and fragmentation, and disturbance due to construction and ongoing operations. Design features to minimize effects to big game and other wildlife are needed. Impacts to wildlife will be analyzed and additional mitigation identified in the EA.

Migratory Birds – The project area contains migratory birds and their habitat. If the project is approved, design features would be included to prevent the harm of migratory birds.

Special Status Species – The project area also provides habitat for BLM sensitive species including ferruginous hawk, greater sage-grouse, brewer’s sparrow, sage sparrow, loggerhead shrike, sage thrasher, golden eagle, bald eagle, and pygmy rabbit. Effects to these species are expected from the Proposed Action through habitat loss and fragmentation, and disturbance due to construction and ongoing operations. Design features to minimize effects to BLM sensitive species and other wildlife are needed. Impacts to BLM sensitive species will be analyzed and mitigation measures identified in the EA.

Resource Surveys

The following surveys are scheduled to be conducted prior to the completion of the EA; Vegetation (Habitat Assessment Framework), pygmy rabbit, raptor, noise and General/BLM Sensitive Species surveys. Cultural resource surveys have been completed and are under review by the BLM.

Public Input Needed

Your comments are specifically requested for the identification of additional resource issues and development of mitigation measures for this project. Comments would be most helpful if they are received by April 30, 2015, and are directly relevant to the project area. The BLM will accept public feedback outside of established public involvement time frames. However, such comments may be considered secondary to comments received in a timely manner and may only be assessed to determine if they identify concerns that would substantially alter the assumptions or analyses presented in the EA.

Written comments must be submitted to the BLM, Burley Field Office, 15 East 200 South, Burley, ID 83318. The office business hours for submitting hand-delivered comments are 7:45 am through 4:30 pm, Monday through Friday, excluding holidays. Electronic comments must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), Word (.doc), or portable document format (.pdf) to BLM_ID_BurleyOffice@blm.gov. E-mails submitted to e-mail addresses other than the one listed, in other formats than those listed, or containing viruses will be rejected. To be most

helpful, comments sent electronically should include the title of this project in the subject line. Please identify whether you are submitting comments as an individual or as the designated spokesperson on behalf of an organization.

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

The primary contact for questions and comments for this project is Steve Lubinski, Geologist, Burley Field Office, (208) 677-6667, or email at Slubinski@blm.gov.

Attachments

Table 1: Lease Stipulations

Map 1: Project Location Map

Map 2: Proposed Action Map

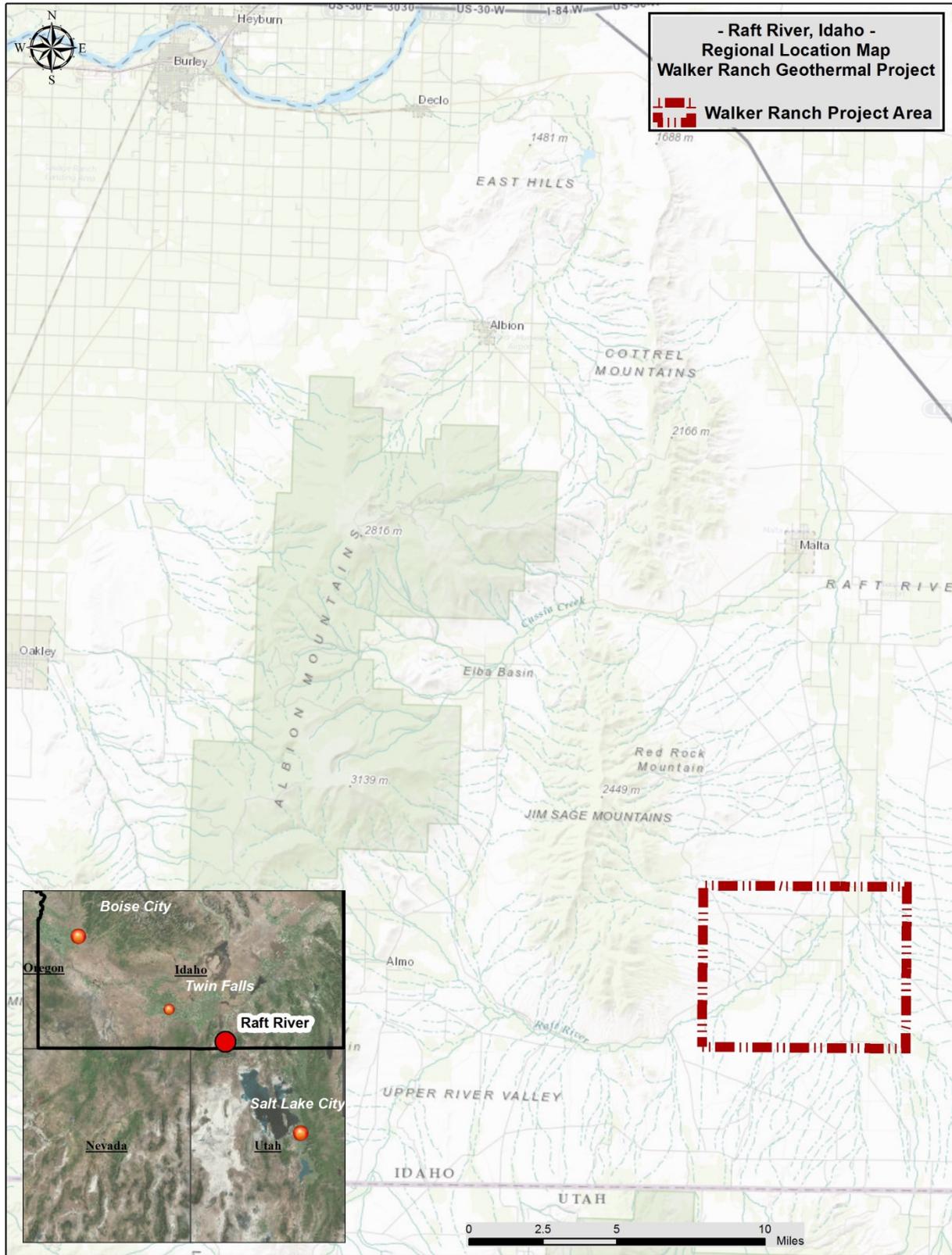
Table 1: Lease Stipulations

Lease IDI #	Lease Stipulation/Notice
35789, 35788, 35786, 37087, 36373	Protect ferruginous hawks between March 1 and July 15, prohibiting activity within the shorter of 2,000 feet or visible range of active nest sites
35789, 35788, 35786, 37087, 36373	No exploration/development work in sage grouse strutting/brood rearing habitat from April 1-June 15
35789, 35786, 37087, 36373	No exploration/development in crucial deer winter range December 1-March 31
35789, 35788, 35786, 37087, 36373, 37027	Control surface disturbing activities in areas with soils that have high erosion potential
35789, 35788, 35786, 37087, 36373, 37027	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 will 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 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.
35789, 35788, 35786, 37087, 36373, 37027	This lease may be found to contain previously unknown 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, Executive Order 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.

37027	Bald eagles (<i>Haliaeetus leucocephalus</i>) and/or golden eagles (<i>Aquila chrysaetos</i>) may now or hereafter be found to utilize the project area. The BLM will not issue a notice to proceed for any project that is likely to result in take of bald eagles and/or golden eagles until the applicant completes its obligation under applicable requirements of the Eagle Act, including completion of any required procedure for coordination with the U.S. Fish and Wildlife Service or any required permit. The BLM hereby notifies the applicant that compliance with the Eagle Act is a dynamic and adaptable process which may require the applicant to conduct further analysis and mitigation following assessment of operational impacts. Any additional analysis or mitigation required to comply with the Eagle Act will be developed with the U.S. Fish and Wildlife Service and coordinated with the BLM.
37027	During project planning, the BLM and applicant/lessee will need to work closely with the U.S. Fish and Wildlife Service to incorporate appropriate provisions and protocols found in Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and other Recommendations in Support of Golden Eagle Management and Permit Issuance (Pagel et al. 2010) or more recent supplemental guidance.
37027	Controlled <u>surface and timing limitation use near sage-grouse leks and/or nesting/early brood rearing habitat</u> : Potentially disruptive construction activities (e.g., pad clearing, well drilling), shall be avoided within 6.4 km (~4 miles) of occupied or undetermined status sage-grouse leks from March 1 to June 30 to reduce disturbance to lekking or nesting grouse (and/or hens with early broods). Specific dates may be earlier or later, depending on local breeding chronology. The spatial buffer may be increased or decreased based on site-specific factors analyzed and documented in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) and authorized via the appropriate Decision document. For smaller-scale disturbances, (e.g., facility maintenance) a 1.0 km (0.62 mile) lek disturbance buffer will apply between approximately March 15 and May 1 from 6:00 PM to 9:00 AM in a specific area to minimize disturbance to lekking grouse (Idaho Sage-grouse Advisory Committee 2006, p. 4-70). Specific dates may be earlier or later, depending on local breeding chronology.
37027	There are a variety of BLM special status species, such as pygmy rabbit and cliff chipmunk, which may now or hereafter be found to utilize the project area. Project specific studies may be required to inventory special status species prior to any project development. Timing limitations, best management practices, and mitigation criteria may be necessary to avoid impacts to special status species. Timing limitations, best management practices, and mitigation criteria would be identified during project-specific NEPA documentation.
37027	Lands adjacent to this lease contain existing water wells. As exploration and development activities commence, the lessee may be required to institute a hydrologic monitoring program commensurate with the level of activity to protect water quality and quantity.

37027	The Cassia RMP and BLM policy indicate that disturbance in proximity to raptor nests should be avoided during certain times of the year. Nest management guidelines are currently under revision by the U.S. Fish and Wildlife Service. Until these guidelines are finalized, protective buffers described in the February 2008 draft version of “ <i>Guidelines for Raptor Conservation in the Western United States</i> ” (Whittington and Allen 2008) will be used to avoid adverse effects to nesting raptors.. While the draft Service guidelines provide recommended disturbance buffers for a comprehensive list of raptor species, species that are most likely to occur in or near the lease parcel are summarized below for convenience.
Species	Spatial Buffer in Non-Urban Areas
Bald eagle ^a	0.5 to 1.0 mile
Northern goshawk	0.5 mile
Ferruginous hawk	1.0 mile
Golden eagle	0.5 mile
Peregrine falcon	1.0 mile
Red-tailed hawk	0.33 mile
Prairie falcon	0.5 mile
Swainson’s hawk	0.25 mile
Burrowing owl	0.25 mile
^a For winter roosts, a 0.25 to 1 mile buffer is recommended, depending on the degree of screening provided by vegetation or topographic features.	
-Seasonal restrictions for potentially disruptive construction or other human activities, will generally apply for raptors from February 1 through July 31 unless an exception is granted by the BLM authorized officer.	
37027	LN-1. This lease area lies within the Eastern Snake River Plain Moratorium and the Raft River Critical Ground Water Area. New consumptive uses of water are not available, which may impact geothermal exploration and development activities. Water used for drilling or development activities would likely require a temporary water appropriation and possibly the use of existing water rights. Future geothermal exploration and development drilling will require permitting through Idaho Department of Water Resources and must be done in a manner that is protective of ground water and geothermal resources in the area.
37027	LN-2. The lease area includes an existing mining Notice of Intent (NOI), filed by Hydrothermal Metals LLC, for the drilling of up to 12 exploration boreholes (3 of which were completed within this geothermal lease nomination). The NOI has expired and the case will be closed pending final reclamation.

Map 1: Project Location Map



Map 2: Proposed Actions Map

