UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Malheur Field office
100 Oregon Street
Vale, Oregon 97918

FINDING OF NO SIGNIFICANT IMPACT

for McDermitt Exploration Project

DOI-BLM-ORWA-V000-2023-045-EA

1.0 INTRODUCTION:

The Bureau of Land Management (BLM) prepared an environmental assessment (EA): DOI-BLM-ORWA-V000-2023-045-EA for the McDermitt Exploration Project (Project) in Malheur County, Oregon. This Finding of No Significant Impact applies to the Proposed Action as described in Section 2.2 of the attached EA. The Proposed Action includes the Proponent (HiTech) to conduct exploration drilling for lithium over a period of five years and not to exceed 103.3 acres of disturbance (including previously permitted notice level disturbance). The EA analyzes impacts to affected resources within the 7,300-acre Project boundary. HiTech would implement all the design features described in Section 2.2.13 of the EA. The Project is located entirely on public lands administered by the BLM Malheur Field Office (MFO), within the Payne Creek Quadrangle and in all or parts of Section 32, Township 40 South (T32S), Range 40 East (R40E); Sections 1, 2, 11 through 14, T41S, R39E; Sections 3 through 10, 17, and 18, T41S, R40E, Willamette Meridian.

2.0 FINDING OF NO SIGNIFICANT IMPACT:

Based on my review of the attached EA and supporting documents, I have determined that the Alternative B - Proposed Action is not a major federal action and will not significantly affect the quality of the human environment. No environmental effects meet the definition of significance as defined in 40 CFR 1501.3(b) and do not exceed those effects described in the Final Environmental Impact Statement (EIS) for the *Southeastern Oregon Approved Resource Management Plan*. Therefore, an environmental impact statement (EIS) is not required. This finding is based on the degree of the effects described in the following sections within the identified affected environment

The following have been considered in my evaluation of the Proposed Action:

2.1 Short- and Long-Term Effects:

Short- and long-term effects; beneficial and adverse effects; effects to public health and safety; and effects that may violate Federal, State, Tribal, or local laws protecting the environment have been considered in my evaluation of the Proposed Action. These are discussed in further detail in this section as follows:

For the purpose of determining the effects, short-term will be defined as a period of time less than 5 years. Long-term will be defined as a period of time greater than 5 years.

2.1.1 Air Quality

Short-term effects of the Proposed Action on air quality are not significant because of the length of the potential effects and the proposed control measures and the other Applicant Committed Environmental Protection Measures ACEPMs. Short-term fugitive dust emissions resulting from equipment travel to, from, and within the Project area may cause localized dust dispersion to adjacent vegetation along the path of travel. The short-term effects (fugitive dust emission) will be reduced through the implementation of control measures (e.g., minimization of vehicle traffic and speed restrictions) that may include watering before and after grading activities and reduction of equipment speeds during operations to be compliant with ODEQ Visible Emission and Nuisance Requirements to control fugitive dust. There is no significant impact resulting from short- and long-term effects of the Proposed Action for air quality. The detailed analysis for this resource can be found in section 3.2 of the EA.

(a) Cultural Resources

The EA has disclosed the potential effects to Cultural Resource. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Short- and long-term effects of the Proposed Action on cultural resources are not significant because of the Programmatic Agreement and the avoidance measure agreed upon. Under the Programmatic Agreement (PA), the BLM and HiTech would develop an Oregon Cultural Resource Assessment (ORCA) for undertakings covered under the PA to establish the Area of Potential Effect (APE) and address the physical and visual effects of an undertaking, provide a summary of known resources present within the APEs, evaluate inventory needs, describe the methods (other than standard inventory) that will be used to analyze effects (e.g., visual modeling), and list the Tribes and members of the public who will be consulted for an undertaking. Potential reasonably foreseeable effects may include increased disturbance and visibility of historic properties, leading to removal or collection by recreationalists. The BLM and HiTech shall seek to avoid effects to historic properties through use of avoidance buffer zones, modifications to the design of undertaking activities, the relocation of undertaking activities, or by other means, as practicable, recognizing valid existing rights. Treatment and data recovery are not preferred mitigation for exploration projects; thus, use of strict avoidance buffer zones would be implemented unless otherwise approved by the BLM after consultation with the State Historic Preservation Office (SHPO) and

the Tribes. Any potential effects would be minimized based on implementation of the PA, Applicant Committed Environmental Protection Measures (ACEPM; EA Section 2.2.13), other applicable environmental protection measures specified in the *Exploration Plan of Operations* (EPO; HiTech, 2025), and the *Monitoring Plan* (Appendix E in HiTech, 2025). There is no significant impact resulting from short- and long-term effects of the Proposed Action for cultural resources. The detailed analysis for this resource can be found in section 3.3 of the EA.

2.1.2 Aquatic Wildlife (Including BLM Sensitive Species)

General Aquatic Wildlife

The EA has disclosed the potential effects to Aquatic Wildlife. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Aquatic species' habitat may potentially be affected in the short-term from ground-disturbing activities associated with access road and drill site construction, with the potential to result in short-term effects such as soil erosion and off-site sediment transport, which if not managed properly, could result in the loss of soils from the Project Area, altering the physical and chemical properties of downstream waters. Three existing temporary stream crossings would be used to access drill targets in the Project Area during low water conditions. The Proposed Action would only occur between July 1 and November 30, outside of peak flow months when stream conditions are typically low or dry (McGinley, 2022b). To protect riparian habitats within the Project Area, all new construction would be at least 300 feet from either side of the flood-prone width for all perennial and intermittent waters, and outside of riparian habitat minimizing any direct effect*s* to aquatic habitat. The Exploration Plan of Operation (HiTech, 2025) requires roads and drill pads to be constructed to limit sediment loading, off-site sediment transport, and destruction of riparian vegetation, minimizing potential short- and long- erm effects to aquatic species' habitat.

All Proposed Action reclamation activities would be completed prior to completion of the Project to restore disturbed areas to as close to pre-disturbance conditions as possible. Potential long-term effects to habitat may occur from sediment loading as a result of soil instability and stream crossing. Design features and Applicant Committed Environmental Protection Measures ACEPMs are included in the EPO (HiTech, 2025) to minimize, but not eliminate, the potential direct and indirect effects of the Project to aquatic species' habitat. ACEPMs (EA Section 2.2.13) include the use of clean, washed gravel or manufactured mats, according to the standards for temporary crossings provided by the United States Army Corps of Engineers (USACE) Portland District and the Oregon Department of State Lands (DSL). This measure would armor the three in-stream crossings, limiting any sedimentation that could be introduced in the improbable event that those crossings are used during or immediately before active flows.

The frequency and total volume of crossings included under the Proposed Action are not sufficient to significantly alter sediment loads in the relevant creek beds. Some of the methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of Best Management Practices (BMPs) specific to soils, which will reduce the loss of any topsoil

or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliage, and the use of clean, washed gravel or manufactured mats at the ford stream crossings. There is no significant impact resulting from short- and long-term effects of the Proposed Action on aquatic wildlife species. The detailed analysis for this resource can be found in section 3.4 of the EA.

Western Ridged Mussel

The EA has disclosed the potential effects to Western Ridged Mussel. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Effects to Western Ridged Mussel (WRM) are similar to the short- and long-term effects to General Aquatic species. The ODFW has identified McDermitt Creek, downstream of the Project Area, as potential for habitat for WRM. Potential short-term and long-term direct effects to the intermittent streams within the Project Area and McDermitt Creek are increased sediment loading, which could have an effect on WRM if present in the waterways.

There are minimal to no short-term or long-term indirect effects to suitable habitat located downstream in McDermitt Creek due to the intermittent flows of Payne Creek, Cherokee Creek, and Mine Creek creating a lack of perennial connectivity between tributary streams within the Project Area and McDermitt Creek.

The short- and long-term potential effects to potentially suitable WRM occupied waterways that support foraging, and migration within the Project Area will be reduced mitigated and minimized through the ACEPMs, reclamation methods, the *Stormwater Pollution and Control Plan* (SWPCP; Appendix D in HiTech, 2025), and the *Monitoring Plan* (Appendix E in HiTech, 2025), which describe the methodologies HiTech would apply to ensure that any potential effects are minimized. Some of the methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of BMPs specific to soils, which will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliar, and the use of clean, washed gravel or manufactured mats at the ford stream crossings. There is no significant impact to WRM or their potentially suitable habitat resulting from the Proposed Actions short- and long-term effects. The detailed analysis for this resource can be found in section 3.4.1 of the EA.

2.1.3 Terrestrial Wildlife (excluding migratory birds)

(i) Terrestrial Wildlife

The EA has disclosed the potential effects to Terrestrial Wildlife. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. During exploration, there would be short-term effect on general terrestrial wildlife resulting from an increase in vehicular traffic from drilling activities for an average of approximately 5 months. This increase in anthropogenic

disturbances and activity (e.g., noise, fencing, nighttime lighting) could cause a potential short-term effect by increasing wildlife movement in the Project Area. The Project Area is located within big game winter range, but the seasonal shutdown from December 1 through June 30 would be implemented to avoid short-term seasonal effects to winter use and movements within the Project Area. Additionally, a direct short-term effect could include wildlife killed by vehicles and other drilling equipment, especially slower moving species; however, vehicles would be required to travel at reduced speeds of 15 to 25 miles per hour (mph), which would minimize any mortalities. HiTech will fully or partially shield all outdoor light fixtures, except incandescent fixtures, of 150 watts or less and other sources of 70 watts or less. LEDs in warm colors only will be used and shall be directed down and use the lowest lumens possible to safely conduct operations to reduce light pollution effects on wildlife occupying the areas around the disturbance. HiTech's reclamation methods (native seed mixtures, fencing, noxious weed herbicide treatments, and routine monitoring) and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) will provide conditions that will promote wildlife use and occupancy following completion of the Project and result in no long-term effects of the Project. There is no significant impact resulting from short- and long-term effects of the Proposed Action on general wildlife. The detailed analysis for this resource can be found in section 3.5 of the EA.

(ii) Bats

The EA has disclosed the potential effects to Bats. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Potential short-term effects to bats resulting from the Proposed Action include avoidance and temporary loss of foraging habitat. The Proposed Action is unlikely to physically affect hibernacula sites for these species as these sites (cliffs and rock outcrops) are not located within the Project Area and are not likely to be disturbed. Riparian corridors within the Project Area that serve as insect foraging habitat and water sources would be avoided due to the implementation of a 300-foot riparian avoidance area. Bats may temporarily relocate to adjacent habitat or temporarily avoid foraging habitat near areas of active disturbance due to short-term effects such as increased noise and human presence.

Night activities and lighting may attract insects, which are a primary food source for bats; however, noise from construction and drilling activities may deter their presence. HiTech will fully or partially shield all outdoor light fixtures, except incandescent fixtures, of 150 watts or less and other sources of 70 watts or less. LEDs in warm colors only will be used and shall be directed down and use the lowest lumens possible to safely conduct operations to reduce light pollution effects on wildlife occupying the areas around the disturbance. No long-term effects are anticipated for bats.

Based on anticipated species occurrence, ACEPMs and BMPs (EA Section 2.2.13), the Proposed Action may have a minimal effect for individual bats but is not likely to cause a population trend downward or trend BLM Sensitive Species toward federal listing or loss of viability for these

species. There is no significant impact resulting from short- and long-term effects of the Proposed Action on bats. The detailed analysis for this resource can be found in section 3.5 of the EA.

(b) Livestock Grazing

The EA has disclosed the potential effects to Livestock Grazing. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Potential short-term effects to the authorized grazing permits include removal of vegetative forage, introduction of noxious weeds, damage to existing fences or water troughs, temporal disturbance to cattle, or car-animal collisions. Under the Preferred Alternative, approximately 103.3 acres would be temporarily affected, representing approximately 0.2 percent of the Zimmerman Allotment. The Proposed Action would have a calculated potential displacement of approximately 25.5 animal unit months (AUM), but the implementation of HiTech's reclamation methods and *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) will prevent the displacement of suitable forage as a long term-effect. These temporary short-term forage loss effects are not anticipated to affect the availability of livestock grazing forage within the Project Area and lead to potential longer-term effects. With the implementation of ACEPMs (EA Section 2.2.13), and the environmental protection measures provided in the EPO (HiTech, 2025), existing range improvements within the Project Area would be protected and enforced, and speed limits would minimize car-animal collisions. Vehicles operating in the Project Area would follow reduced speed limits of 15 to 25 mph. Fencing would not be cut during exploration activities. Gates would be closed and/or locked, as appropriate, and left in the condition in which they are encountered. HiTech will coordinate with the BLM to establish an appropriate plan to minimize effects from Project activities known to cause leaks or breaks in the pipeline used to fill livestock water troughs, by fortifying leaks, other appropriate maintenance, or seasonal timing with the allotment permittee. There is no significant impact resulting from short- and long-term effects of the Proposed Action on livestock grazing. The detailed analysis for this resource can be found in section 3.6 of the EA.

(c) Migratory Birds

The EA has disclosed the potential effects to Migratory Birds. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Short-term effects to migratory birds may occur as a result of the increased anthropogenic activity and noise generated from the Project, which may cause them to avoid habitat near the Proposed Action area. However, nests and fledglings would not be harmed due to mitigative measures such as conducting pre-clearance surveys and the use of buffers if nests are documented. Pre-clearance surveys and the use of buffers, and reporting, are detailed in the *Monitoring Plan* (Appendix E in HiTech, 2025). Potential long-term effects for migratory birds and raptors may include the avoidance of suitable

habitat and the construction of nests where the ecological state has been temporarily changed as a result of the exploration drilling. HiTech's reclamation methods (HiTech, 2025) and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), which includes revegetation using native seed mixtures, fencing, noxious weed herbicide treatments, and routine monitoring, will provide conditions that will promote migratory bird and raptor use and occupancy following completion of the Project and avoid any long-term effects. There is no significant impact resulting from short- and long-term effects of the Proposed Action on migratory birds. The detailed analysis for this resource can be found in section 3.7 of the EA.

(d) Native American Religious and Cultural Resources

The EA has disclosed the potential effects to Native American religious and cultural resources. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. The effects to Native American religious and cultural resources of the Proposed Action, as it pertains to visual resources, is direct short-term occurrence of drilling activity (dust from travel, light, equipment presence) within the viewshed looking towards or from the culturally significant Key Observation Point (KOP), Disaster Peak. These short-term visual effects would only occur between July 1 through November 30, when there is active exploration activity. Potential long-term effects may be observed where drill pads and access roads were constructed but would gradually disappear over the course of five years as foliar cover established and blended with the surrounding undisturbed landscape. The Project includes up to 40 groundwater monitoring wells and one 10-meter meteorological monitoring station to remain in the Project Area long term. The wells will be accessible via overland travel, and the station will be accessed using an existing road. While these facilities will remain following the conclusion of exploration, the KOP is over 8 miles away, and the wells and meteorological station would not significantly alter the characteristics of the landscape because there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. No illumination will be required for the wells and meteorological station; therefore, there are no long-term nighttime visual effects. In addition to the conditions set forth in the PA, HiTech will immediately cease activities within 100 feet of the discovery of human remains, burials, or any previously unidentified cultural (archaeological or historical) resources and will not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical archaeological site, structure, building, or object encountered in the Project Area. In the event of a discovery, HiTech will ensure that the discovery is appropriately protected and will immediately notify the BLM authorized officer. Any such discovery will be left intact until told to proceed by the authorized officer. There is no significant impact resulting from short- and long-term effects of the Proposed Action on Native American religious and cultural concerns. The detailed analysis for this resource can be found in section 3.8 of the EA.

(e) Noxious and Invasive, Non-Native Species

The EA has disclosed the potential effects to Noxious and Invasive and Non-Native Species. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Under the Proposed Action, some vegetation within the Project Area would be removed or disturbed and may contribute to the potential short-term spread of noxious weeds and invasive, non-native plants and decrease native plant community composition. Increased vehicular traffic may also contribute to direct and indirect dispersal of noxious weeds and invasive, non-native plants to areas traveled within and outside of the Project Area. Potential long-term effects could include a temporary loss of native vegetative species composition that would not be suitable for wildlife use because of a deviation from the natural ecological state. Based on the management practices outlined in the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), any noxious weed and invasive, non-native species sites would be identified, treated, and monitored annually over the five-year life of the Project and until final reclamation is completed. Additionally, the EPO (HiTech, 2025) and the SWPCP (Appendix D in HiTech, 2025) will also minimize potential risks of noxious weed and invasive, non-native species by implementing fencing around disturbed areas, routine revegetation, monitoring, and methods to stabilize soil in prior disturbed areas to ensure that natural revegetation can establish, and there is no erosion that could create conditions conducive for noxious weed and invasive, non-native species sites. There is no significant impact resulting from short- and long-term effects of the Proposed Action on noxious and invasive, non-native species. The detailed analysis for this resource can be found in section 3.9 of the EA.

(f) Socioeconomics

The EA has disclosed the potential effects to Socioeconomics. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Contractors will be used for road and drill site construction and for drilling operations. Local contractors and residents will receive hiring preferences where feasible, resulting in some direct short-term positive effects. Up to 14 contracted employees will be used. The Project will be managed by HiTech staff or their designees (HiTech, 2025). The Project would not have a noticeable short-term or long-term effect to employment, income, and poverty in the study area. There is no significant impact resulting from short- and long-term effects of the Proposed Action on socioeconomics. The detailed analysis for this resource can be found in section 3.10 of the EA.

(g) Soils

The EA has disclosed the potential effects to Soils. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Soil erosion potential for disturbance within the Project Area during exploration operations would be higher than exists in the natural environment. Short-term effects include soil loss from water erosion as a result of the removal of protective vegetation and topsoil. Long-term potential effects, such as the loss of productive topsoil, may result in more persistent erosion due to surface runoff and a lack of establishing foliar cover. Short-term effects from soil compaction can lead to soil loss by increasing surface runoff and erosion. As heavy equipment is used to clear vegetation and topsoil, and as vehicles such as drill rigs, water trucks, and support vehicles travel on roads and overland, soil pore spaces collapse, leading to reduced porosity, a lack of infiltration, and an increase in runoff. Potential effects to soil would be reduced by the implementation of ACEPMs (EA Section 2.2.13), which includes actions taken (e.g., wattles, contouring, scarifying, and other sediment and erosion control methods), as provided in the SWPCP or approved by the BLM, which will reduce sediment runoff from the Proposed Action during construction and operations, monitoring, and reclamation.

Final reclamation methods (e.g., redistribution of soil and recontouring native seed mixtures, fencing, revegetation monitoring) described in the EPO (HiTech, 2025) would promote the stabilization of soils directly with the appropriate use of contouring, revegetation of all disturbed areas, and through promulgation of revegetation to provide soil stability. Concurrent and final reclamation practices would ensure that soil effects remain localized. Any short- or long-term effects to soil would be minimized based on the ACEPMs (EA Section 2.2.13), the reclamation methods (HiTech, 2025), and the SWPCP (Appendix D in HiTech, 2025). There is no significant impact resulting from short- and long-term effects of the Proposed Action on soil resources. The detailed analysis for this resource can be found in section 3.11 of the EA.

(h) BLM Sensitive Species – Plants

The EA has disclosed the potential effects to BLM Sensitive plant species. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Under the Proposed Action, approximately 145 occurrences (16 percent) of BLM Sensitive plant species within the Project Area would be directly affected by being removed or disturbed over the five-year life of the Project. The Proposed Action may result in short-term effects to BLM Sensitive plant species in the form of fugitive dust, physical disturbance during construction, trampling from vehicles and equipment, competition or loss of habitat due to weed encroachment, and compaction of soils, which may indirectly inhibit water and nutrient availability for native vegetation. HiTech commits to conducting avoidance pre-clearance surveys concurrent with other biological

clearance surveys of work sites targeted for each season's construction. Where practical, HiTech will avoid BLM Sensitive plants using a 100-foot buffer. Potential long-term effects would be loss of suitable habitat due to weed establishment and competition for disturbed soils against other native or non-native species in the altered ecological state. The short-and long-term potential effects to BLM Sensitive plants will be reduced through the ACEPMs (EA Section 2.2.13), the reclamation methods (HiTech, 2025), the SWPCP (Appendix D in HiTech, 2025), and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), and requirements for native seed mixes, noxious weed treatment, soil stabilization, and monitoring, which will reclaim the land to a prior disturbed ecological state and will be conducive to both established and future establishment BLM Sensitive plants..

Based on anticipated species occurrence, species habitat preference, and ACEPMs (EA Section 2.2.13), the Proposed Action may have an effect on individual BLM Sensitive species but is not likely to cause a trend toward federal listing or loss of viability for the species. The Proposed Action would not affect the viability of any BLM Sensitive occurrence. There is no significant impact resulting from short- and long-term effects of the Proposed Action on BLM Sensitive plant species. The detailed analysis for this resource can be found in section 3.12 of the EA.

2.1.4 BLM Sensitive Species – Terrestrial Wildlife

(i) Greater Sage-Grouse

The EA has disclosed the potential effects to Terrestrial Wildlife. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. The most recent 2024 ODFW sage-grouse lek data identifies 2 occupied, active leks within the Project Area, and 20 occupied leks (12 active, 8 inactive), 5 pending leks (2 active, 3 inactive), and 9 unoccupied (inactive) leks within 4 miles of the Project Area. The nearest lek is located approximately 490 feet from proposed Project disturbance. The Proposed Action would directly disturb approximately 103.3 acres of potentially suitable habitat (0.03 percent) of the total 476,987.55 acres that comprise Trout Creek's Priority Areas of Conservation (PAC) over the five-year life of the Project. The Proposed Action could result in potential indirect effects including avoidance of suitable habitat within the Project Area and in the immediate vicinity due to lighting, vibration, noise, dust, temporary fencing or human presence.

HiTech would implement a seasonal shutdown December 1 through June 30 to avoid effects during the sage-grouse lekking season. No activities would occur during this period beyond monitoring and maintenance. As such, it was determined by the BLM and ODFW that noise was not to be considered an effect and baseline noise monitoring during the lekking season would not be needed. For greater sage-grouse occupying habitat during active Project activity, noise from construction and drilling activities may cause temporal disturbance of exploration activity resulting in an increased energy expenditure.

Although HiTech will implement a seasonal shutdown December 1 through June 30 to avoid impacts to greater sage-grouse lekking season, potential indirect effects may still occur. Indirect effects include reduced nest success due to habitat quality degradation, reduced food availability due to habitat degradation during brooding season, and during the winter season reduced food availability and cover due to habitat degradation.

Concurrent reclamation activities would reduce impacts to greater sage-grouse; however, decreased quality of habitat and increased habitat fragmentation during Project implementation and following reclamation are likely due to the prolonged time required to establish high-quality mature sagebrush habitat and potential for establishment and spread of invasive species and noxious weeds. HiTech would conduct biological clearance surveys of work sites targeted for that season's construction which will minimize any noise or other exploration activity potential effect on greater sage-grouse. HiTech would implement a phased approach to allow ODFW to better estimate Project impacts for future debit calculations. There is no significant impact resulting from short- and long-term effects of the Proposed Action on greater sage-grouse. The detailed analysis for this resource can be found in section 3.13 of the EA.

(ii) Pygmy Rabbit

The EA has disclosed the potential effects to Pygmy Rabbit. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Approximately 1 acre (0.25 percent) of suitable habitat is identified within the proposed Project disturbance. Potential short-term effects to the pygmy rabbit as a result of the Proposed Action may include effects to individuals from noise, vibrations, vehicular travel and increased human presence (Edgel, 2018). HiTech would incorporate ACEPMs, including reduced speed limits (15 to 25 mph, as conditions warrant), implement a seasonal drilling shutdown December 1 through June 30 each year, and conduct biological clearance surveys, including burrows of work sites targeted for that season's construction, which include avian species and nests. Individuals that currently use the active burrow located outside of the Project Area and approximately 0.2 mile from the location of proposed Project disturbance may be affected but is not likely to cause a trend toward federal listing or loss of viability for these species. Due to the minimal amount of pygmy rabbit habitat, no long-term effects are anticipated. There is no significant impact resulting from short- and long-term effects of the Proposed Action on pygmy rabbits. The detailed analysis for this resource can be found in section 3.13 of the EA.

(iii) Bats

The EA has disclosed the potential effects to AB. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. For BLM Sensitive bat species,

riparian corridors within the Project Area that serve as insect foraging habitat and water sources would be avoided due to the implementation of a 300-foot riparian avoidance area. Bats may temporarily relocate to adjacent habitat or temporarily avoid foraging habitat near areas of active disturbance due to short-term effects such as increased noise and human presence. Night activities and lighting may attract insects, which are a primary food source for bats; however, noise from construction and drilling activities may deter their presence. Night lighting would be focused downward and use the lowest lumens possible to safely conduct operations in work areas to reduce disturbance to wildlife and night skies. There is no significant impact resulting from short- and long-term effects of the Proposed Action on BLM Sensitive bat species.

In addition to the ACEPMs (Section 2.2.13), HiTech will take all available measures to ensure that BLM Sensitive wildlife are not unduly disturbed and that the drill holes will be capped to reduce potential injury to wildlife. The reclamation methods in the EPO and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) will ensure that HiTech's reclamation methods (BLM and DOGAMI approved seed mixtures, fencing, noxious weed herbicide treatments, and routine monitoring) provide conditions that will promote wildlife use and occupancy following completion of the Project. The Project disturbance footprint is minimal in relation to the overall Project Area (103.3 acres within 7,200 acres, or 1.4 percent of the Project Area). The Proposed Action is not likely to result in an alteration of the existing habitat or contribute to a decline in the existing condition. The Proposed Action may have an minimal effect for individual BLM Sensitive species but is not likely to cause a population trend downward or trend toward federal listing or loss of viability for these species. There is no significant impact resulting from short- and long-term effects of the Proposed Action on BLM Sensitive terrestrial species. The detailed analysis for this resource can be found in section 3.5 of the EA.

2.1.5 Threatened and Endangered Species and Proposed Threatened and Endangered Species

(i) Threatened and Endangered

The EA has disclosed the potential effects to Threatened and Endangered Species. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures Lahontan Cutthroat Trout (LCT) (*Oncorhynchus clarkii henshawi*) habitat may potentially be affected in the short-term from ground-disturbing activities associated with access road and drill site construction, with the potential to result in short-term effects such as soil erosion and off-site sediment transport, which if not managed properly, could result in the loss of soils from the Project Area, altering the physical and chemical properties of downstream waters. The Project would have no direct effect to LCT because there are no LCT-occupied streams within the Project Area. Three existing temporary stream crossings would be used to access drill targets in

the Project Area during low water conditions. The Proposed Action would only occur between July 1 and November 30, outside of peak flow months when stream conditions are typically low or dry (McGinley, 2022b). To protect riparian habitats within the Project Area, all new construction would be at least 300 feet from either side of the flood-prone width for all perennial and intermittent waters, and outside of riparian habitat eliminating any effect*s* to potential habitat. The EPO (HiTech, 2025) requires roads and drill pads to be constructed to limit sediment loading, off-site sediment transport, and destruction of riparian vegetation, minimizing effects to streams that may be intermittently connected to potential suitable LCT habitat downstream in McDermitt Creek.

All Project reclamation activities would be completed prior to completion of the Project to restore disturbed areas to as close to pre-disturbance conditions as possible. There are minimal to no short-term or long-term direct and indirect effects to the unoccupied, yet suitable, habitat located downstream in McDermitt Creek due to the intermittent flows of Payne Creek, Cherokee Creek, and Mine Creek, creating a lack of perennial connectivity between tributary streams within the Project Area and McDermitt Creek. Potential long-term effects to potential habitat may occur from sediment loading as a result of soil instability and stream crossing. Design features and ACEPMs are included in the EPO (HiTech, 2025) to minimize, but not eliminate, the potential direct and indirect effects of the Project to potentially suitable LCT habitat. ACEPMs (EA Section 2.2.13) include the use of clean, washed gravel or manufactured mats, according to the standards for temporary crossings provided by the USACE Portland District and the Oregon Department of State Lands (DSL). This measure would armor the three in-stream crossings, limiting any sedimentation that could be introduced in the improbable event that those crossings are used during or immediately before active flows.

The frequency and total volume of crossings included under the Proposed Action are not sufficient to significantly alter sediment loads in the relevant creek beds. Some of the methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of BMPs specific to soils, which will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliar, and the use of clean, washed gravel or manufactured mats at the ford stream crossings. There is no significant impact resulting from short- and long-term effects of the Proposed Action on threatened and endangered species. The detailed analysis for this resource can be found in section 3.6 of the EA.

(ii) Proposed Threatened and Endangered Species

The EA has disclosed the potential effects to Proposed Threatened and Endangered Species. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. The short-

and long-term potential effects to Monarch Butterflies' (*Danaus Plexippus)* potentially suitable upland habitat that support forage habitat within the Project Area, if present, will be reduced and minimized through the ACEPMs, reclamation methods (HiTech, 2025), the SWPCP (Appendix D in HiTech, 2025), and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), which describe the methodologies HiTech will apply to ensure that any potential effects are minimized. Some of the methodologies include, but are not limited to, fencing to keep out grazing livestock for revegetation success to ensure the disturbed area can be returned to a functional habitat, selection of native seed mixtures that are representative of the surrounding ecological state, monitoring for reclamation success and eradication methods for noxious weeds and invasives, and implementation of BMPs specific to soils that will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure soils stabilization of soils within disturbed areas. HiTech will conduct vegetation surveys, including milkweed, prior to disturbance activities to identify habitat. If found to be present, HiTech will modify the seed mix for reclamation accordingly as part of the ACEPM (EA Section 2.2.13). There is no significant impact resulting from short- and long-term effects of the Proposed Action on proposed threatened and endangered species. The detailed analysis for this resource can be found in section 3. 14 of the EA.

(i) Vegetation

The EA has disclosed the potential effects to Vegetation. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Potential short-term effects to vegetation may occur until vegetation has been reestablished in areas of disturbance, which could produce an increased risk for weed encroachment and soil loss. The *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) includes steps to minimize the introduction of new weeds and prevent the spread of existing noxious or invasive species through the use of herbicide treatments, vehicle cleaning and inspection, and annual monitoring to quickly address any new noxious infestations. The short-term effects to the composition and abundance of vegetation would be minimized by implementing reclamation methods (HiTech, 2025) and ACEPMs (EA Section 2.2.13).

Final and interim reclamation would be conducted once a drill site or access route is no longer needed to reduce long-term effects from vegetation removal. Regraded or recontoured areas would be seeded at the appropriate time of year (fall or spring) to provide for optimum germination and plant establishment. Reclaimed surfaces would be left in a textured or rough condition to promote seed retention and moisture concentration. A certified weed-free BLM-approved native seed mix would be used. Reclamation would be completed using BLM-approved methods that meet the standards outlined in 43 CFR 3809.420(b)(3) (HiTech, 2025). Post-reclamation maintenance would consist of remedial dirt work and reseeding, as required. The Proposed Action, implemented in coordination with the ACEPMs and BMPs (EA Section

2.2.13), the *Noxious Weed Management and Monitoring Plan*, reclamation methods (HiTech, 2025), and conformance with Public Lands Rule 89 FR 40308, will return vegetative conditions back to pre-disturbance conditions, allowing for slow-growing vegetation to return over time and will not result in permanent effects to vegetation resources. There is no significant impact resulting from short- and long-term effects of the Proposed Action on vegetation resources. The detailed analysis for this resource can be found in section 3.15 of the EA.

(j) Visual Resources

The EA has disclosed the potential effects to Visual Resources. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. It is reasonable to assume that the short-term effects to visual resources may occur but only during exploration activities (July 1 – November 30) and in clear daytime conditions where direct changes in landscape patterns from Disaster Peak related to the drill sites, roads and yards, including travel routes, may be visualized. However, the view from the KOP is over 8 miles away, and the proposed drilling activities would not significantly alter the characteristics of the landscape, as there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. From the KOP, Disaster Peak, a maximum of 34 acres consisting of drill sites, roads, and yards, will be located in Visual Resource Management (VRM) Class II, and 19.3 acres consisting of drill sites and roads will be located in VRM Class III. All light sources above 150 watts will be downcast and shielded to direct light on the job site and limit light spillage. A casual observer would not be distracted by the activity during nighttime hours due to the distance from the KOP and the mitigation efforts. Effects to the visual scenic quality of the area will be reduced by reclaiming and revegetating all disturbed areas to approximate the original contour in a timely manner and avoidance of adjacent lands with wilderness characteristics.

Reclamation and/or interim stabilization will be in accordance with BLM standards. All equipment and supplies will be removed from the Project Area during temporary periods of inactivity, including seasonal shutdown. Temporary facilities, such as water tanks and porta toilets, will be removed or appropriately secured from theft or vandalism (HiTech, 2025). The Project includes up to 40 groundwater monitoring wells and one 10-meter meteorological monitoring station to remain in the Project Area long term. Wells will be located on VRM Class II and Class III areas. The 10-meter meteorological monitoring station will be located on a VRM Class II area. The wells will be accessible via overland travel and the station will be accessed using an existing road. While these facilities will remain after exploration has concluded, the KOP is over 8 miles away, and the wells and meteorological station would not significantly alter the characteristics of the landscape because there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. No illumination will be required for the wells and meteorological station; therefore, there are no long-term nighttime visual effects. There is no significant impact resulting from short- and long-term effects of the

Proposed Action on visual resources. The detailed analysis for this resource can be found in section 3.16 of the EA.

2.1.6 Water Resources (Surface and Groundwater)

(i) Surface Water Quality and Quantity

The EA has disclosed the potential effects to Water Resources. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Potential short-term effects to surface water quality as a result of the Proposed Action include sediment erosion and increased turbidity from stream crossings. The proposed stream crossings would be limited to two existing metal culverts and three existing fords. The two culverts, located on Zimmerman Ranch Road, are used to cross Cherokee Creek and Payne Creek. There would be no direct contact between equipment and surface water for the culvert crossings. Three streams would be crossed via existing fords on Cherokee Creek at Disaster Peak Road and Mine Creek at Turner Ranch Road and Disaster Peak Road. The stream crossing using an existing metal culvert on Payne Creek and the stream crossing using a low water crossing via an existing ford on Mine Creek at Disaster Peak Road are located outside the Project Area. Crossings would be required to access 26 of the 261 proposed drill sites (approximately 10 percent). The Proposed Action would have seasonal restrictions and exploration activities would be limited to occur between July 1 and November 30. Cherokee Creek and Mine Creek were observed as dry during low flow times of the year, when exploration activities occur (McGinley, 2022b). HiTech would use clean, washed gravel or manufactured mats at the ford stream crossings according to the standards for temporary crossings provided by the USACE Portland District and the Oregon DSL. HiTech will not remove any riparian shade, install erosion and sediment controls, and buffer all waterways by 300 feet, resulting in minimal potential short-term effects to Lower McDermitt Creek and Cherokee Creek, which are impaired waters as defined by the Clean Water Act for fish and aquatic life due to water temperature issues. Potential short-term effects to stream crossings on Cherokee Creek and Mine Creek would be minimized with the use of seasonal restrictions when these crossings are generally dry and implementation of the BMPs discussed in the SWPCP (Appendix D in HiTech, 2025) and ACEPMs (EA Section 2.2.13), which include routine surface water monitoring at select locations and installation of up to four instream monitoring stations at select surface monitoring sites.

HiTech will use the data collected quarterly from the surface water monitoring stations to monitor the effects to waterways due to drilling operations and to prevent or provide an opportunity to avoid short term effects and or reduce the effects to surface water through the implementation or modification of BMPs. Payne Creek, Mine Creek, and Cherokee Creek have intermittent stream flows, and do not have hydraulic connection to groundwater (McGinley, 2022b). HiTech does not currently hold surface water rights within the vicinity of the Project

Area, and water for drilling operations would be obtained from the water supply as described in the Proposed Action. There is no significant impact resulting from short- and long-term effects of the Proposed Action on water resources. The detailed analysis for this resource can be found in section 3.17 of the EA.

(ii) Groundwater Quality and Quantity

The EA has disclosed the potential effects to Groundwater quality and quantity. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. The water supply well proposed for drilling use and the proposed monitoring wells are located within the Project Area and would consist of the same water chemistry encountered during drilling under the Proposed Action. The supply well would be cased and sealed to prevent any seepage of water through the borehole and prevent potential surface contamination to groundwater. Each borehole would be properly plugged in accordance with Oregon Administrative Regulations (OAR) 632-033-0025(7)(e), groundwater monitoring wells would be constructed, developed, and abandoned in accordance with OAR 690-240, and the supply well would be properly abandoned per Oregon abandonment regulations OAR 690-0030 through 690-220-0140. Fluids used for exploration drilling fluids and borehole abandonment are non-toxic and standard for environmental protection and are the same as used for drilling of drinking water wells. All drilling fluid products used for the Project would meet National Sanitation Foundation (NSF)/American National Standards Institute Standard 60 (2016); therefore, the Proposed Action would have no effect on groundwater quality.

The proposed water supply well is currently permitted by Oregon Water Resources Department (OWRD) (LL-1941) to pump 41,250 gallons per day from March 1 to November 30 each year through October 31, 2027. The volume of permitted water is equal to 11,302,500 gallons or 34.69-acre-feet annually. The maximum rate of pumping is 75 gallons per minute or 0.17 cubic feet per second. The total estimated pumped volume for the life of the Project would be 173.45-acre-feet, which is 0.02 percent of the Owyhee Basin and Malheur Basin combined average yield. Up to 40 exploration boreholes would be converted to groundwater monitoring wells exploration as part of the *Monitoring Plan* (Appendix E in HiTech, 2025) and ACEPMs (EA Section 2.2.13) to monitor hydrogeologic conditions proximal to exploration drilling activities (HiTech, 2025). HiTech would be responsible for maintaining the groundwater monitoring wells for as long as they are the proponent on record with applicable federal and state permits.

The Proposed Action may seasonally cause a direct short-term minor decline in groundwater levels but would not affect the availability for existing permitted water users in the Owyhee and Malheur River basins. Due to the relatively small percentage (0.02 percent) of water estimated to be pumped in comparison to the average basins' yield, there is no significant effect resulting

from short- and long-term effects of the Proposed Action on water resources. The detailed analysis for this resource can be found in section 3.17 of the EA.

(iii) Floodplains

The EA has disclosed the potential effects to floodplains. The effects do not rise to the level of significance as considered in the EA, Also, potential short term and long-term effects are negligible because of the ACEPMs and control measures. Soil compaction and stripping can lead to direct short-term effects like the increase of surface runoff and erosion. As heavy equipment is used to clear vegetation and topsoil, and as vehicles such as drill rigs, water trucks, and support vehicles travel on roads and overland, soil pore spaces collapse, leading to reduced porosity could lead to a lack of infiltration, and an increase in longer-term runoff effects. All new construction would be conducted at least 300 feet from either side of the flood-prone width for all perennial and intermittent waters, and outside of riparian habitat, whichever is greater. HiTech will not consider areas with slopes greater than 30 percent or where there is evidence of eroding into or off of either the toe or the head of a slope. This includes areas where there is evidence of surface water runoff to minimize the potential to affect floodplains.

Reclamation of disturbance areas would be performed as soon as the roads or drill pads were no longer needed. Using an excavator or a dozer, drill sites would be graded, scarified, and revegetated. Restoration of vegetation and soil productivity would be monitored on an annual basis, and the reclamation bond would not be released until revegetation success is achieved. Soil compaction or potential effects to floodplains would be reduced by incorporating ACEPMs (EA Section 2.2.13) and erosion control features to aid in energy dispersion if they are needed. There is no significant impact resulting from short- and long-term effects of the Proposed Action on floodplains. The detailed analysis for this resource can be found in section 3.17 of the EA.

2.2 Beneficial and Adverse Effects

(k) Air Quality

The EA has disclosed the potential effects to air quality. The effects do not rise to the level of significance as considered in the EA. Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Control measures will minimize adverse effects from fugitive dust emissions.(e.g., minimization of vehicle traffic and speed restrictions), which may include watering before and after grading activities and reduction of equipment speeds during operations to be compliant with ODEQ Visible Emission and Nuisance Requirements to control fugitive dust. The Proposed Action would not result in any changes to the status quo for air quality.

(l) Cultural Resources

The EA has disclosed the potential effects to cultural resources. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The PA outlines steps that the BLM would take to evaluate potential adverse effects the Project may have on historic properties that are none due to avoidance. Without avoidance, direct adverse effects may include damage or destruction of cultural resources. BLM and HiTech shall seek to avoid adverse effects to historic properties through use of avoidance buffer zones, modifications to the design of undertaking activities, the relocation of undertaking activities, or by other means, as practicable, recognizing valid existing rights. If the BLM, informed by discussion with the Proponent, determines that avoidance is not feasible or prudent, the BLM shall evaluate the effects of the undertaking on historic properties. The BLM would provide effects determinations and mitigation plans to SHPO for consultation. In addition to the conditions set forth in the PA and ACEPMs (EA Section 2.2.13), HiTech will develop a detailed Monitoring and Inadvertent Discovery Plan (MIDP) with BLM cultural resources staff to ensure that the boundaries of cultural resource avoidance areas, established within the Project Area, are maintained. Any potential adverse effect would be minimized environmental protection measures specified in the EPO (HiTech, 2025) and HiTech's *Monitoring Plan* (Appendix E in HiTech, 2025. There are no beneficial or adverse effects to cultural resources from the Proposed Action resulting in a significant impact.

2.2.1 Aquatic Wildlife (Including BLM Sensitive Species

(i) General Aquatic Wildlife

The EA has disclosed the potential effects to general aquatic wildlife. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Aquatic species' habitat may potentially be adversely affected from ground-disturbing activities associated with access road and drill site construction such as soil erosion and off-site sediment transport, which if not managed properly, could result in the loss of soils from the Project Area, altering the physical and chemical properties of downstream waters. Three existing temporary stream crossings would be used to access drill targets in the Project Area during low water conditions. The Proposed Action would only occur between July 1 and November 30, outside of peak flow months when stream conditions are typically low or dry (McGinley, 2022b). To protect riparian habitats within the Project Area, all new construction would be at least 300 feet from either side of the flood-prone width for all perennial and intermittent waters, and outside of riparian habitat minimizing any adverse effects to aquatic habitat. The EPO (HiTech, 2025) requires roads and drill pads to be constructed to limit sediment loading, off-site sediment transport, and avoid destruction of riparian vegetation, minimizing potential adverse effects to aquatic species' habitat.

All Project reclamation activities would be completed prior to completion of the Project to restore disturbed areas to as close to pre-disturbance conditions as possible. Potential adverse

effects to habitat may occur from sediment loading as a result of soil instability. Design features and ACEPMs are included in the EPO (HiTech, 2025) to minimize, but not eliminate, the potential adverse effects to aquatic habitat from the Proposed Action. ACEPMs include the use of clean, washed gravel or manufactured mats, according to the standards for temporary crossings provided by the USACE Portland District and the Oregon DSL. This measure would armor the three in-stream crossings, limiting any sedimentation that could be introduced in the improbable event that those crossings are used during or immediately before active flows.

The frequency and total volume of crossings included under the Proposed Action are not sufficient to significantly alter sediment loads in the relevant creek beds. Some of the methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of BMPs specific to soils, which will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliar, and the use of clean, washed gravel or manufactured mats at the ford stream crossings. There are no beneficial or adverse effects to general aquatic species and habitat from the Proposed Action resulting in a significant impact.

(ii) Western Ridged Mussel

The EA has disclosed the potential effects to Western Ridged Mussel. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Potential adverse effects to Western Ridged Mussel (WRM) are similar to the adverse potential effects to General Aquatic species. The ODFW has identified McDermitt Creek, downstream of the Project Area, as potential for habitat for WRM. Potential adverse effects to the intermittent streams within the Project Area and McDermitt Creek are increased sediment loading, which could impact WRM if present in the waterways.

There are minimal potential adverse effects to suitable habitat located downstream in McDermitt Creek due to the intermittent flows of Payne Creek, Cherokee Creek, and Mine Creek creating a lack of perennial connectivity between tributary streams within the Project Area and McDermitt Creek.

The potential adverse effects to potentially suitable WRM occupied waterways that support foraging, and migration within the Project Area is avoided and minimized through the ACEPMs, reclamation methods, the SWPCP (Appendix D in HiTech, 2025), and the *Monitoring Plan* (Appendix E in HiTech, 2025), which describe the methodologies HiTech would apply to ensure that any potential adverse effects are minimized. Some of the methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of BMPs specific to soils, which will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliar, and the use of clean, washed gravel or manufactured mats at the ford stream

crossings. There are no beneficial or adverse effects to WRM or their potential habitat from the Proposed Action resulting in a significant impact.

(m) Livestock Grazing

The EA has disclosed the potential effects to livestock grazing. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Potential adverse effects to the authorized grazing permits include removal of forage, introduction of noxious weeds, damage to existing fences or water troughs, temporal disturbance to cattle, or car-animal collisions. Under the Preferred Alternative, approximately 103.3 acres would be temporarily affected, representing approximately 0.2 percent of the Zimmerman Allotment. The Proposed Action would have a calculated potential displacement of approximately 25.5 AUMs, but the implementation of HiTech's reclamation methods and *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) will prevent the displacement of suitable forage as an adverse effect. With the implementation of ACEPMs (EA Section 2.2.13), and the environmental protection measures provided in HiTech (2025), existing range improvements within the Project Area would be protected, and enforced speed limits would minimize car-animal collisions. Vehicles operating in the Project Area would follow reduced speed limits of 15 to 25 mph. Fencing would not be cut during exploration activities. Gates would be closed and/or locked as appropriate and left in the condition in which they are encountered. HiTech will coordinate with the BLM to establish an appropriate plan to minimize effects from Project activities known to cause leaks or breaks in the pipeline used to fill livestock water troughs, by fortifying leaks, other appropriate maintenance, or seasonal timing with the allotment permittee. There are no beneficial or adverse effects to livestock grazing from the Proposed Action resulting in a significant impact.

(n) Migratory Birds

The EA has disclosed the potential effects to migratory birds. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Adverse effects to migratory birds may occur as a result of the increased anthropogenic activity and noise generated from the Project, and they may avoid habitat near the Proposed Action area; however, nests and fledglings would not be harmed due to conducting pre-clearance surveys and the use of buffers if nests are documented. Pre-clearance surveys, the use of buffers, and reporting are detailed in the *Monitoring Plan* (Appendix E in HiTech, 2025). Potential longer-term adverse effects for migratory birds and raptors may include the avoidance of suitable habitat and the construction of nests where the ecological state has been temporarily changed as a result of the exploration drilling. HiTech's reclamation methods (HiTech, 2025) and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), which includes revegetation using native seed mixtures, fencing, noxious weed herbicide treatments, and routine monitoring, will provide conditions that will promote migratory bird and raptor use and occupancy following completion

of the Project and reduced and avoid any short term and long-term adverse effects. There are no beneficial or adverse effects to migratory birds from the Proposed Action resulting in a significant impact.

(o) Native American Religious and Cultural Resource Concerns

The EA has disclosed the potential effects to Native American religious and cultural resources. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Potential effects of the Proposed Action to Native American religious and cultural resources, as it pertains to visual resources, are direct adverse effects of drilling activity (dust from travel, light, equipment presence) within the viewshed looking towards or from the culturally significant KOP, Disaster Peak. These adverse visual effects would only occur between July 1 through November 30, when there is active exploration activity. Potential adverse effects may be observed where drill pads and access roads were constructed but would gradually disappear over the course of five years as foliar cover established and blended with the surrounding undisturbed landscape. The Project includes up to 40 groundwater monitoring wells and one 10-meter meteorological monitoring station to remain in the Project Area long term. The wells will be accessible via overland travel, and the station will be accessed using an existing road. While these facilities will remain following the conclusion of exploration, the KOP is over 8 miles away and the wells and meteorological station would not significantly alter the characteristics of the landscape because there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. No illumination will be required for the wells and meteorological station; therefore, there are no adverse nighttime visual effects. In addition to the conditions set forth in the PA, HiTech will immediately cease activities within 100 feet of the discovery of human remains, burials, or any previously unidentified cultural (archaeological or historical) resources and will not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical archaeological site, structure, building, or object encountered in the Project Area. In the event of a discovery, HiTech will ensure that the discovery is appropriately protected and will immediately notify the BLM authorized officer. Any such discovery will be left intact until told to proceed by the authorized officer. There are no beneficial or adverse effects to Native American religious and cultural resources from the Proposed Action resulting in a significant impact.

(p) Noxious and Invasive, Non-Native Species

The EA has disclosed the potential effects to noxious and invasive and non-native species. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Under the Proposed Action, some adverse effects to vegetation would occur within the Project Area. Vegetation would be removed or disturbed and may contribute to the potential spread of noxious weeds and invasive, non-native plants and decrease native plant community composition,

resulting in a deviation from it natural ecological state. Increased vehicular traffic may also contribute to direct and indirect dispersal of noxious weeds and invasive, non-native plants to areas traveled within and outside of the Project Area. Based on the management practices outlined in the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), any noxious weed and invasive, non-native species sites would be identified, treated, and monitored annually over the five-year life of the Project and until final reclamation is completed. Additionally, the EPO (HiTech, 2025) and the SWPCP (Appendix D in HiTech, 2025) will also minimize potential risks of noxious weed and invasive, non-native species by implementing fencing around disturbed areas, routine revegetation, monitoring, and methods to stabilize soil in prior disturbed areas to ensure that natural revegetation can establish, and there is no erosion that could create conditions conducive for noxious weed and invasive, non-native species sites. There are no beneficial or adverse effects to noxious and invasive, non-native species from the Proposed Action resulting in a significant impact.

(q) Socioeconomics

The EA has disclosed the potential effects to socioeconomics. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures Contractors will be used for road and drill site construction and for drilling operations. Local contractors and residents will receive hiring preferences where feasible, resulting in some direct beneficial effects. Up to 14 contracted employees will be used. The Project will be managed by HiTech staff or their designees (HiTech, 2025). The Project would not have a noticeable adverse effect to employment, income, and poverty in the study area; however, there may be small, targeted economic opportunities for contractors to spend money in the region and, if feasible, small local employment. There are no beneficial or adverse effects to socioeconomics from the Proposed Action resulting in a significant impact.

(r) Soils

The EA has disclosed the potential effects to soils. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Soil erosion potential for disturbance within the Project Area during exploration operations would be higher than exists in the natural environment. Adverse effects include soil loss from water erosion because of the removal of protective vegetation and topsoil. Potential longer-term adverse effects, such as the loss of productive topsoil, may result in more persistent erosion due to surface runoff and a lack of establishing foliar cover. Adverse effects from soil compaction can lead to soil loss by increasing surface runoff and erosion. As heavy equipment is used to clear vegetation and topsoil, and as vehicles such as drill rigs, water trucks, and support vehicles travel on roads and overland, soil pore spaces collapse, leading to reduced porosity, a lack of infiltration, and an increase in runoff. Adverse effects to soil would be reduced by the implementation of ACEPMs (EA Section

2.2.13), which include actions taken (e.g., wattles, contouring, scarifying, and other sediment and erosion control methods) as provided in the SWPCP (Appendix D in HiTech, 2025) or approved by the BLM, which will reduce sediment runoff from the Proposed Action during construction and operations, monitoring, and reclamation.

Final reclamation methods (e.g., redistribution of soil and recontouring native seed mixtures, fencing, revegetation monitoring) described in the EPO (HiTech, 2025) would promote the stabilization of soils directly with the appropriate use of contouring, revegetation of all disturbed areas, and through promulgation of revegetation to provide soil stability. Concurrent and final reclamation practices would ensure that soils affected would remain localized. Any adverse effects to soil would be minimized based on the ACEPMs, the reclamation methods (HiTech, 2025), and the SWPCP (Appendix D in HiTech, 2025). There are no beneficial or adverse effects to soil resources from the Proposed Action resulting in a significant impact.

(s) BLM Sensitive Species – Plants

The EA has disclosed the potential effects to BLM Sensitive plant species. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Under the Proposed Action, approximately 145 occurrences (16 percent) of BLM Sensitive plant species within the Project Area would be directly affected by being removed or disturbed over the five-year life of the Project. The Proposed Action may result in adverse effects to BLM Sensitive species in the form of fugitive dust, physical disturbance during construction, trampling from vehicles and equipment, competition or loss of habitat due to weed encroachment, and compaction of soils, which may indirectly inhibit water and nutrient availability for native vegetation. HiTech commits to conducting avoidance pre-clearance surveys concurrent with other biological clearance surveys of work sites targeted for each season's construction. Where practical, HiTech will avoid BLM Sensitive plants using a 100-foot buffer. Potential long-term adverse effects would be loss of suitable habitat due to weed establishment and competition for disturbed soils against other native or non-native species in the altered ecological state. Potential adverse effects to BLM Sensitive plants is avoided or reduced through the ACEPMs (EA Section 2.2.13), the reclamation methods (HiTech, 2025), the SWPCP (Appendix D in HiTech, 2025), and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), and requirements for native seed mixes, noxious weed treatment, soil stabilization, and monitoring, which will reclaim the land to a prior disturbed ecological state, and will be conducive to both established and future establishment BLM Sensitive species.

Based on anticipated species occurrence, species habitat preference, and ACEPMs (EA Section 2.2.13), the Proposed Action may have an effect on individual BLM Sensitive species but is not likely to cause a trend toward federal listing or loss of viability for the species. The Proposed Action would not affect the viability of any BLM Sensitive species occurrence. There is no significant impact resulting from beneficial or adverse effects of the Proposed Action on BLM Sensitive plant species.

2.2.2 BLM Sensitive Species – Terrestrial Wildlife

(i) Greater Sage-Grouse

The EA has disclosed the potential effects to Greater Sage-Grouse. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The most recent 2024 ODFW greater sage-grouse lek data identifies 2 occupied, active leks within the Project Area, and 20 occupied leks (12 active, 8 inactive), 5 pending leks (2 active, 3 inactive), and 9 unoccupied (inactive) leks within 4 miles of the Project Area. The nearest is located approximately 490 feet from proposed Project disturbance. The Proposed Action would directly disturb approximately 103.3 acres of potentially suitable habitat (0.03 percent) of the total 476,987.55 acres that comprise Trout Creek's PAC over the five-year life of the Project. The Proposed Action could result in potential adverse effects including avoidance of suitable habitat within the Project Area and in the immediate vicinity due to lighting, vibration, noise, dust, temporary fencing or human presence.

HiTech would implement a seasonal shutdown December 1 through June 30 to avoid adverse effects during the greater sage-grouse lekking season. No activities would occur during this period beyond monitoring and maintenance. As such, it was determined by the BLM and ODFW that noise was not to be considered an effect and baseline noise monitoring during the lekking season would not be needed. For greater sage-grouse occupying habitat during active Project activity, noise from construction and drilling activities may cause temporal disturbance of exploration activity resulting in an increased energy expenditure.

Although HiTech will implement a seasonal shutdown December 1 through June 30 to avoid impacts to greater sage-grouse lekking season, potential indirect adverse effects may still occur. Indirect adverse effects include reduced nest success due to habitat quality degradation, reduced food availability due to habitat degradation during brooding season, and during the winter season reduced food availability and cover due to habitat degradation.

Concurrent reclamation activities would reduce impacts to greater sage-grouse; however, decreased quality of habitat and increased habitat fragmentation during Project implementation and following reclamation are likely due to the prolonged time required to establish high-quality mature sagebrush habitat and potential for establishment and spread of invasive species and noxious weeds. HiTech would conduct biological clearance surveys of work sites targeted for that season's construction which will minimize any noise or other exploration activity potential effect on greater sage-grouse. HiTech would implement a phased approach to allow ODFW to better estimate Project impacts for future debit calculations. There is no significant impact resulting from beneficial or adverse effects of the Proposed Action on greater sage-grouse.

(ii) Pygmy Rabbit

The EA has disclosed the potential effects to pygmy rabbit. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible

because of the ACEPMs and control measures. Approximately 1 acre (0.25 percent) of suitable habitat is identified within the proposed Project disturbance. Potential adverse effects to the pygmy rabbit as a result of the Proposed Action may include effects to individuals from noise, vibrations, vehicular travel and increased human presence (Edgel, 2018). HiTech would incorporate ACEPMs, including reduced speed limits (15 to 25 mph, as conditions warrant), implement a seasonal drilling shutdown December 1 through June 30 each year, and conduct biological clearance surveys for burrows of work sites targeted for that season's construction. Individuals that currently use the active burrow located outside of the Project Area and approximately 0.2 mile from the location of proposed Project disturbance may be affected but is not likely to cause a trend toward federal listing or loss of viability for these species. Due to the minimal amount of pygmy rabbit habitat and environmental protection measures, no adverse effects are anticipated. There is no significant impact resulting from short- and long-term effects of the Proposed Action on pygmy rabbits.

(iii) Bats

The EA has disclosed the potential effects to bats. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. For BLM Sensitive bats, riparian corridors within the Project Area that serve as insect foraging habitat and water sources would be avoided due to the implementation of a 300-foot riparian avoidance area. Bats may temporarily relocate to adjacent habitats or temporarily avoid foraging habitat near areas of active disturbance due to potential adverse effects such as increased noise and human presence. Night activities and lighting may attract insects, which are a primary food source for bats; however, noise from construction and drilling activities may deter their presence. Night lighting would be focused downward and use the lowest lumens possible to safely conduct operations in work areas to reduce disturbance to wildlife and night skies. There is no significant impact resulting from beneficial or adverse effects of the Proposed Action on BLM Sensitive bat species.

In addition to the ACEPMs (Section 2.2.13), HiTech will take all available measures to ensure that BLM Sensitive wildlife are not unduly disturbed and that the drill holes will be capped to reduce potential injury to wildlife. The reclamation methods in the EPO and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) will ensure that HiTech's reclamation methods (BLM and DOGAMI approved seed mixtures, fencing, noxious weed herbicide treatments, and routine monitoring) provide conditions that will promote wildlife use and occupancy following completion of the Project. The Project disturbance footprint is minimal in relation to the overall Project Area (103.3 acres within 7,200 acres, or 1.4 percent of the Project Area). The Proposed Action is not likely to result in an alteration of the existing habitat or contribute to a decline in the existing condition. The Proposed Action may have an minimal effect for individual BLM Sensitive species but is not likely to cause a population trend downward or trend toward federal listing or loss of viability for these species. There is no

significant impact resulting from beneficial or adverse effects of the Proposed Action on BLM Sensitive terrestrial species.

2.2.3 Threatened and Endangered Species and Proposed Threatened and Endangered Species

(i) Listed Threatened and Endangered

The EA has disclosed the potential effects to Listed Threatened and Endangered. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Lahontan Cutthroat Trout (LCT) (*Oncorhynchus clarkii henshawi*) habitat may be potentially adversely affected from ground-disturbing activities associated with access road and drill site construction such as soil erosion and off-site sediment transport, which if not managed properly, could result in the loss of soils from the Project Area, altering the physical and chemical properties of downstream waters. The Project would have no direct effect to LCT because there are no LCT-occupied streams within the Project Area. Three existing temporary stream crossings would be used to access drill targets in the Project Area during low water conditions. The Proposed Action would only occur between July 1 and November 30, outside of peak flow months when stream conditions are typically low or dry (McGinley, 2022b). To protect riparian habitats within the Project Area, all new construction would be at least 300 feet from either side of the flood-prone width for all perennial and intermittent waters, and outside of riparian habitat eliminating any effects to potential habitat. The EPO (HiTech, 2025) requires roads and drill pads to be constructed to limit sediment loading, off-site sediment transport, and destruction of riparian vegetation, minimizing effects to streams that may be intermittently connected to potential suitable LCT habitat downstream in McDermitt Creek.

All Project reclamation activities would be completed prior to completion of the Project to restore disturbed areas to as close to pre-disturbance conditions as possible. There are minimal to no adverse effects to unoccupied, suitable habitat located downstream in McDermitt Creek due to the intermittent flows of Payne Creek, Cherokee Creek, and Mine Creek creating a lack of perennial connectivity between tributary streams within the Project Area and McDermitt Creek. Potential long-term adverse effects to potential habitat may occur from sediment loading as a result of soil instability. Design features and ACEPMs are included in the EPO (HiTech, 2025) to minimize, but not eliminate, the potential direct and indirect effects of the Project to potentially suitable LCT habitat. ACEPMs include the use of clean, washed gravel or manufactured mats, according to the standards for temporary crossings provided by the USACE Portland District and the Oregon Department of State Lands. This measure would armor the three in-stream crossings, limiting any sedimentation that could be introduced in the improbable event that those crossings are used during or immediately before active flows.

The frequency and total volume of crossings included under the Proposed Action are not sufficient to significantly alter sediment loads in the relevant creek beds. Some of the

methodologies include, but are not limited to, a 300-foot buffer from waterways, implementation of BMPs specific to soils, which will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure stabilization of soils within disturbed areas, routine water quality monitoring, no removal of riparian foliar, and the use of clean, washed gravel or manufactured mats at the ford stream crossings. There are no beneficial or adverse effects to threatened and endangered aquatic species from the Proposed Action resulting in a significant impact.

(ii) Proposed Threatened and Endangered Species

The EA has disclosed the potential effects to proposed threatened and endangered species. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The potential adverse effects to Monarch Butterflies' *(Danaus Plexippus)* potentially suitable upland habitat that support forage habitat within the Project Area, if present, is reduced and minimized through the ACEPMs, reclamation methods (HiTech, 2025), the SWPCP (Appendix D in HiTech, 2025), and the *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), which describe the methodologies HiTech will apply to ensure that any potential effects are minimized. Some of the methodologies include, but are not limited to, fencing to keep out grazing livestock for revegetation success to ensure the disturbed area can be returned to a functional habitat, selection of native seed mixtures that are representative of the surrounding ecological state, monitoring for reclamation success and eradication methods for noxious weeds and invasives, and implementation of BMPs specific to soils that will reduce the loss of any topsoil or sediment runoff into a receiving waterbody and ensure soils stabilization of soils within disturbed areas. HiTech will conduct vegetation surveys, including milkweed, prior to disturbance activities to identify habitat. If found to be present, HiTech will modify the seed mix for reclamation accordingly as part of the ACEPM (EA Section 2.2.13). There are no beneficial or adverse effects to proposed threatened and endangered terrestrial species from the Proposed Action resulting in a significant impact.

(t) Vegetation

The EA has disclosed the potential effects to vegetation. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Potential adverse effects to vegetation may occur until vegetation has reestablished in areas of disturbance, potential adverse effects could produce an increased risk for weed encroachment and soil loss. The *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025) includes steps to minimize the introduction of new weeds and prevent the spread of existing noxious or invasive species through the use of herbicide treatments, vehicle cleaning and inspection, and annual monitoring to quickly address any new noxious infestations. The adverse effects to the composition and abundance of vegetation would be minimized by implementing reclamation methods (HiTech, 2025) and ACEPMs and BMPs (EA Section 2.2.13).

Final and interim reclamation would be conducted once a drill site or access route is no longer needed to reduce adverse effects from vegetation removal. Regraded or recontoured areas would be seeded at the appropriate time of year (fall or spring) to provide for optimum germination and plant establishment. Reclaimed surfaces would be left in a textured or rough condition to promote seed retention and moisture concentration. A certified weed-free BLM-approved native seed mix would be used. Reclamation would be completed using BLM-approved methods that meet the standards outlined in 43 CFR 3809.420(b)(3) (HiTech, 2025). Post-reclamation maintenance would consist of remedial dirt work and reseeding, as required. The Proposed Action, implemented in coordination with the ACEPMs and BMPs (EA Section 2.2.13). The *Noxious Weed Management and Monitoring Plan* (Appendix C in HiTech, 2025), reclamation methods (HiTech, 2025), and conformance with Public Lands Rule 89 FR 40308 will return vegetative conditions back to pre-disturbance conditions allowing for slow-growing vegetation to return over time. There are no beneficial or adverse effects of the Proposed Action on vegetation resulting in a significant impact.

(u) Visual Resources

The EA has disclosed the potential effects to proposed visual resources. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The adverse effects to visual resources and only during exploration activities (July 1 – November 30) it is reasonable to assume that in clear daytime conditions that some direct changes in landscape patterns may be visible from Disaster Peak related to the drill sites, roads and yards, including travel routes. However, the view from the KOP is over 8 miles away, and the proposed drilling activities would not significantly alter the characteristics of the landscape, as there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. From the KOP, Disaster Peak, a maximum of 34 acres consisting of drill sites, roads, and yards will be located in VRM Class II, and 19.3 acres consisting of drill sites and roads will be located in VRM Class III. All light sources above 150 watts will be downcast and shielded to direct light on the job site and limit light spillage. A casual observer would not be distracted by the activity during nighttime hours due to the distance from the KOP and the mitigation efforts. Effects to the visual scenic quality of the area will be reduced by reclaiming and revegetating all disturbed areas to approximate the original contour in a timely manner and avoidance of adjacent lands with wilderness characteristics.

Reclamation and/or interim stabilization will be in accordance with BLM standards. All equipment and supplies will be removed from the Project Area during temporary periods of inactivity, including seasonal shutdown. Temporary facilities, such as water tanks and porta toilets, will be removed or appropriately secured from theft or vandalism (HiTech, 2025). The Project includes up to 40 groundwater monitoring wells and one 10-meter meteorological monitoring station to remain in the Project Area long term. Wells will be located on VRM Class II and Class III areas. The 10-meter meteorological monitoring station will be located on a VRM

Class II area. The wells will be accessible via overland travel and the station will be accessed using an existing road. While these facilities will remain after exploration has concluded, the KOP is over 8 miles away, and the wells and meteorological station would not significantly alter the characteristics of the landscape because there will be no changes to topography. A casual observer would not be distracted by the activity during daylight hours. No illumination will be required for the wells and meteorological station; therefore, there are no adverse nighttime visual effects. There are no beneficial or adverse effects to visual resources from the Proposed Action resulting in a significant impact.

2.2.4 Water Resources (Surface and Groundwater)

(i) Surface Water Quality and Quantity

The EA has disclosed the potential effects to surface water quality and quantity. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Potential effects to surface water quality as a result of the Proposed Action include sediment erosion and increased turbidity from stream crossings. The proposed stream crossings would be limited to two existing metal culverts and three existing fords (Figure 4). The two culverts, located on Zimmerman Ranch Road, are used to cross Cherokee Creek and Payne Creek. There would be no direct contact between equipment and surface water for the culvert crossings. Three streams would be crossed via existing fords on Cherokee Creek at Disaster Peak Road and on Mine Creek at Turner Ranch Road and Disaster Peak Road (Figure 4). The stream crossing using an existing metal culvert on Payne Creek and the stream crossing using a low water crossing via an existing ford on Mine Creek at Disaster Peak Road are located outside the Project Area. Crossings would be required to access 26 of the 261 proposed drill sites (approximately 10 percent). The Proposed Action would have seasonal restrictions and exploration activities would be limited to occur between July 1 and November 30. Cherokee Creek and Mine Creek were observed as dry during low flow times of the year, when exploration activities occur (McGinley, 2022b). HiTech would use clean, washed gravel or manufactured mats at the ford stream crossings according to the standards for temporary crossings provided by the USACE Portland District and the Oregon DSL. HiTech will not remove any riparian shade, install erosion and sediment controls, and buffer all waterways by 300 feet, resulting in minimal potential adverse effects to Lower McDermitt Creek and Cherokee Creek, which are impaired waters as defined by the Clean Water Act for fish and aquatic life due to water temperature issues. Potential adverse effects to stream crossings on Cherokee Creek and Mine Creek would be minimized with the use of seasonal restrictions when these crossings are generally dry and implementation of the BMPs discussed in the SWPCP and ACEPMs, which include routine surface water monitoring at select locations and installation of up to four instream monitoring stations at select surface monitoring sites.

HiTech will use the data collected quarterly from the surface water monitoring stations to monitor the effects to waterways due to drilling operations and to prevent or provide an

opportunity to reduce, minimize or avoid short term effects and long term effects to surface water through the implementation or modification of BMPs. Payne Creek, Mine Creek, and Cherokee Creek have intermittent stream flows, and do not have hydraulic connection to groundwater (McGinley, 2022b). HiTech does not currently hold surface water rights within the vicinity of the Project Area and water for drilling operations would be obtained from the water supply as described in the Proposed Action. There are no beneficial or adverse effects to water resources from the Proposed Action resulting in a significant impact.

(ii) Groundwater Quality and Quantity

The EA has disclosed the potential effects to groundwater quality and quantity. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The water supply well proposed for drilling use and the proposed monitoring wells are located within the Project Area and would consist of the same water chemistry encountered during drilling under the Proposed Action. The supply well would be cased and sealed to prevent any seepage of water through the borehole and prevent potential surface contamination of groundwater. Each borehole would be properly plugged in accordance with OAR 632-033-0025(7)(e), groundwater monitoring wells would be constructed, developed, and abandoned in accordance with OAR 690-240, and the supply well would be properly abandoned per Oregon abandonment regulations OAR 690-0030 through 690-220-0140. Fluids used for exploration drilling fluids and borehole abandonment are non-toxic and standard for environmental protection and are the same as used for drilling of drinking water wells. All drilling fluid products used for the Project would meet NSF/American National Standards Institute Standard 60 (2016); therefore, the Proposed Action would have no effect on groundwater quality.

The proposed water supply well is currently permitted by OWRD (LL-1941) to pump 41,250 gallons per day from March 1 to November 30 each year through October 31, 2027. The volume of permitted water is equal to 11,302,500 gallons or 34.69-acre-feet annually. The maximum rate of pumping is 75 gallons per minute or 0.17 cubic feet per second. The total estimated pumped volume for the life of the Project would be 173.45-acre-feet, which is 0.02 percent of the Owyhee Basin and Malheur Basin combined average yield. Up to 40 exploration boreholes would be converted to groundwater monitoring wells exploration as part of the *Monitoring Plan* (Appendix E in HiTech, 2025) and ACEPMs (EA Section 2.2.13) to monitor hydrogeologic conditions proximal to exploration drilling activities (HiTech, 2025). HiTech would be responsible for maintaining the groundwater monitoring wells for as long as they are the proponent on record with applicable federal and state permits.

The Proposed Action may seasonally cause a direct short-term minor decline in groundwater levels but would not affect the availability for existing permitted water users in the Owyhee and Malheur River basins. Due to the relatively small percentage (0.02 percent) of water estimated to be pumped in comparison to the average basins' yield, there are no beneficial or adverse effects to water resources from the Proposed Action resulting in a significant impact.

(iii) Floodplains

The EA has disclosed the potential effects to floodplains. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. Soil compaction and stripping can lead to potential adverse effects like the increase of surface runoff and erosion. As heavy equipment is used to clear vegetation and topsoil, and as vehicles such as drill rigs, water trucks, and support vehicles travel on roads and overland, soil pore spaces collapse, leading to reduced porosity and a lack of infiltration which may increase sediment runoff. HiTech will not consider areas with slopes greater than 30 percent or where there is evidence of eroding into or off of either the toe or the head of a slope. This includes areas where there is evidence of surface water runoff to minimize the potential effect on floodplains.

Reclamation of disturbance areas would be performed as soon as the roads or drill pads were no longer needed. Using an excavator or a dozer, drill sites would be graded, scarified, and revegetated. Restoration of vegetation and soil productivity would be monitored on an annual basis, and the reclamation bond would not be released until success criteria established in the EPO are met. Soil compaction or potential effects to floodplains would be reduced by incorporating ACEPMs (EA Section 2.2.13) and erosion control features to aid in energy dispersion if they are needed. There are no beneficial or adverse effects to the floodplains from the Proposed Action resulting in a significant impact.

2.3 Effects on Public Health and Safety

The EA has disclosed the potential effects to public health and safety. The effects do not rise to the level of significance as considered in the EA, Also, potential beneficial and adverse effects are negligible because of the ACEPMs and control measures. The effects of public health and safety were not analyzed in detail in the EA because the resource specialists found no indications that the activity would cause adverse effects given the design features in the Proposed Action. Additionally, no comments from the public identified public health and safety. Safety practices were incorporated into the Proposed Action (EA Sections 2.2.10 and 2.2.13) to ensure safe operating procedures for the Project. Safety practices, including warning signs, high visibility fencing, and speed limits, would be used to alert the public of operations and to protect public safety and construction of turnouts on designated roads. No significant impact will result from the effects on public health and safety from the Proposed Action because of these design features.

2.4 Effects that would violate Federal, State, Tribal, or local laws protecting the environment.

The Proposed Action would not violate any Federal, State, Tribal, or local laws protecting the environment. Design features would be implemented to ensure compliance with Federal laws and regulations, State of Oregon regulations including fish and wildlife air quality, and surface and groundwater protections standards.

_____ _____

[Insert name and title of Authorized Officer] Date