
Appendix E

Fallon FORGE Environmental Protection Measures

This page intentionally left blank.

APPENDIX E

FALLON FORGE ENVIRONMENTAL PROTECTION MEASURES

WATER QUALITY AND QUANTITY

The proponent would develop a monitoring and mitigation plan for the thermal springs, which the BLM and Navy would approve and would submit for approval before the agencies' determination of a Finding of No Significant Impact for the project.

Monitoring would include collection of baseline data at least 1 to 2 years before operations begin, depending on previously collected and available data.

The BLM and Navy would determine the frequency and duration of monitoring and baseline data collection. Monitoring would include collecting discharge and flow rates, water stage and levels, water quality, temperature, and other appropriate field parameters determined by the BLM and Navy.

A draft monitoring and mitigation plan and a draft proposal for baseline data collection would be submitted to the BLM and Navy for approval before any data are collected.

If the aboveground water line has no flow, the line would be drained to prevent freezing and bursting.

To keep any potentially leaked or spilled geothermal brine from encroaching on wetland and riparian areas, erosion control devices and catchment systems would be installed around couplings and in natural drainages in and leading into any riparian areas crossed by the temporary pipeline.

To ensure there is no leaking, the length of the temporary pipeline would be regularly inspected daily.

If a leak is detected along the length of the temporary pipeline, from 84-31 or 88-24 to the production/injection wells, pumping would be shut down to repair the leak. If a prolonged repair time is necessary, pumping would be decreased and, if needed, it would be shut down to allow for pipeline repair.

WETLANDS AND RIPARIAN AREAS

No disturbance or cross-country travel would occur on or in wetland/riparian vegetation.

The proponent would adhere to the no surface occupancy geothermal lease stipulation for lease numbers NVN-079104, NVN-079105, and NVN-079106, as described in Appendix B of the Salt Wells EIS (pages B-5–B-7; BLM 2011).

Before implementing the Proposed Action, the project proponent would conduct a wetland delineation for the 630-acre portion of the project area under federal lease. This would be done to verify the boundaries, acreage, and types of wetlands and riparian areas and associated no surface occupancy buffers previously identified in the project area. In accordance with the abovementioned lease stipulations, there would be no surface disturbance in areas within 650 feet of a delineated feature.

Applicable Environmental Protection Measures and Best Management Practices, as described in Appendix E of the Salt Wells EIS (BLM 2011) and Appendix E of this EA, would apply to the Proposed Action. These measures include complying with the stormwater pollution prevention plan, minimizing vegetation removal, prohibiting overland travel, and preventing noxious weed spread.

Where jurisdictional wetlands or Other Waters of the United States could not be completely avoided, the project proponent would obtain regulatory approval for any wetland removal or fill. All mitigation measures determined by the US Army Corps of Engineers in the regulatory permit would be strictly adhered to.

WILDLIFE AND KEY HABITAT

Any pits, including sumps, that present a wildlife trapping hazard would be fitted or constructed with an escape ramp. These measures would conform to Appendix D, Best Management Practices—Mitigation Measures, of the BLM's 2008 geothermal leasing PEIS and NDOW's Geothermal Sump Guidelines (no date).

Open, uncapped hollow pipes or other openings would be capped, screened, or otherwise covered to prevent unintentional wildlife entrapment. In addition, other openings where wildlife escape ramps are not practicable, such as well cellar openings, would be capped or covered so they would not pose a wildlife trap hazard.

The project proponents would develop and implement a noxious weed monitoring and treatment plan.

Applicable environmental protection measures and best management practices, as described in Appendix E of the Salt Wells EIS (BLM 2011), would apply to the Proposed Action. Measures would include providing environmental education for workers, preventing overland travel, avoiding sensitive habitats, minimizing vegetation removal, and implementing measures to prevent wildlife entrapment or injury.

The BLM wildlife biologist and NDOW would be notified within 24 hours of any wildlife injuries or mortalities found in the project area during construction or operation.

BLM SENSITIVE SPECIES

The project proponents would conduct pre-project clearance surveys for BLM sensitive animal species with the potential to occur in or close to the project area that could be affected by the Proposed Action. Qualified biologists would conduct surveys for all known and potential BLM sensitive animal species in suitable habitat in the project area footprint. They would use protocols approved by the BLM, the Navy, and NDOW, as applicable. If BLM sensitive animal species or their dens are identified, impacts would be avoided by flagging or fencing and by applying appropriate avoidance buffers, as determined by the qualified biologist and the BLM, Navy, or NDOW. If avoidance is not feasible, the BLM or Navy would determine the timing restrictions or other mitigation, in coordination with NDOW.

The project proponent would conduct pre-project surveys for BLM sensitive plant species in the well assessment areas or any area where disturbance is proposed, during the appropriate season. Qualified botanists would conduct surveys for known and potential species in suitable habitat in the project area footprint. They would use protocols approved by the BLM and the Navy. If these species are observed, impacts would be avoided by flagging or fencing the populations and by applying an appropriate avoidance buffer determined by the qualified botanist and the BLM and Navy. If avoidance is not feasible, the BLM would determine potential mitigation measures to ensure no net loss of sensitive plants. Potential mitigation measures could include transplanting them to suitable undisturbed habitat or by collecting seeds.

Applicable environmental protection measures and best management practices, as described in Appendix E of the Salt Wells EIS (BLM 2011), would apply to the Proposed Action. Measures include providing environmental education for workers, preventing overland travel, avoiding sensitive habitats, minimizing vegetation removal, and implementing measures to prevent wildlife entrapment or injury.

MIGRATORY BIRDS

Surface-disturbing activities would not occur during the migratory bird nesting season. If surface-disturbing activities must occur during this period, qualified, BLM-approved biologists would conduct pre-construction avian surveys not

more than 7 days before surface-disturbing activities begin. The specific area to be surveyed would be based on the scope of the surface-disturbing activities, as determined by the qualified biologist, in coordination with the BLM. If surface-disturbing activities do not take place within 7 days of the surveys, the areas would be resurveyed. If nesting migratory birds are detected during surveys, appropriate buffers determined by the BLM, in coordination with other state and federal wildlife agencies, would be applied. Buffers will remain in effect until the qualified biologist determines that young have fledged or the nest has failed; this determination would be communicated to the BLM for review and approval.

Applicable environmental protection measures and best management practices, as described in Appendix E of the Salt Wells EIS (BLM 2011), would apply to the Proposed Action. Measures include providing environmental education for workers, preventing overland travel, minimizing vegetation removal, implementing measures to prevent wildlife entrapment or injury, and minimizing or preventing weed establishment and spread in migratory bird habitat, including the adjacent IBA.

INVASIVE, NONNATIVE, AND NOXIOUS WEEDS

The proponents would prepare and implement a noxious weed monitoring and treatment plan before construction. The plan would include a description and map of noxious weeds in the project area. The plan would also outline proposed weed treatments, including a pesticide use plan and annual monitoring. The plan would detail best practices for preventing project-related weed establishment and spread, which include, at a minimum, minimizing surface disturbance, using certified weed-free gravel or fill materials, and washing off-road construction equipment before using it on-site.

In summary, the plan would describe measures necessary to ensure that the project would not cause a net increase in noxious weeds in the project area and that any project-related weed infestations are controlled.

Applicable environmental protection measures and best management practices, as described in Appendix E of the Salt Wells EIS (BLM 2011), would apply to the Proposed Action. Measures include minimizing vegetation removal and preventing noxious weed spread.