

DOCKETED

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Response to Data Requests Set No. 4 (Biological Resources) – Bottle Rock Geothermal Power Plant (79-AFC-04C)

BIOLOGICAL RESOURCES UNIT

1. 1. Please perform nitrogen deposition modeling for the proposed project's operational NOx emissions as required by California Code of Regulations, title 20, section 1877(d), Appendix B (g)(13)(B)(ii). The modeling should specify the amount of total annual nitrogen deposition in kilograms of nitrogen per hectare per year (kg N/ha/yr) in special status species habitats and vegetation types for wet and dry deposition. Please describe each habitat and species potentially affected. Include the complete citation for references used in determining deposition rates and location (including the source document for documents not readily available online) in determining deposition rates and location.

Response 1

The Project, as defined in the PTA, would not generate any operational NOx emissions. The emergency back-up generator at the Project site was installed for prior Bottle Rock operations. The existing emergency back-up generator is tested annually and testing has continued while the power plant is not in operation. This testing would continue on the same schedule during operation of the new 7.5 MW geothermal power generation at the Bottle Rock Power Plant. Because the operation of the emergency back-up generators have been operating under existing conditions, the PTA would not generate any new or increased NOx emissions and would thus not cause any change in nitrogen deposition associated with use of the emergency backup generator. The proposed operation defined in the PTA would not emit NOx.

2. Please provide an aerial map of the isopleth graphic depicting modeled nitrogen deposition rates as required by California Code of Regulations, title 20, section 1877(d), Appendix B(g)(13)(B)(ii). The geographical extent of the nitrogen deposition map(s) should include the entire plume and a radius of 6 (six) miles from the source, specifically identifying acres of sensitive habitat(s) within each isopleth. Please provide modeling parameters and files.

Response 2

See response #1 above. There are no operational NOx emissions as a result of the proposed project.

3. Provide a discussion of sensitive species habitat impacts, including impacts to serpentine habitat and serpentine-endemic plants, from air emissions (i.e., nitrogen deposition) including direct, indirect, and cumulative effects, as required by California Code of Regulations, title 20, section 1877(d), Appendix B(g)(13)(E).

Response 3

See response #1 above. There are no operational NOx emissions as a result of the proposed project.

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4. Please clarify State whether the area of pipeline construction near coordinates at approximately 38.84034, -122.77201 is part of a stream or not, and if this stream is culverted or not.

Response 4

The coordinates provided are approximately 50 feet north of a stream (see Figure 1). The stream is culverted where the existing road crosses over the pipeline. The pipeline construction would avoid impacts on the stream and riparian corridor by locating the pipeline above the culvert and outside of the stream in this area.

5. Describe the methods that would be used to underground the pipeline, including the type of machinery to be used, methods used to prevent lubricant, fuel, drilling fluid, or other contaminants from entering streams, and how spoils would be used, stockpiled, or removed.

Response 5

The underground pipeline would be installed in a trench. The trench would be constructed using tracked equipment such as a mini excavator or mini skid steer trencher. Equipment would only be fueled or serviced from within the existing fenced and paved BRP site and all fuels, lubricants, etc. would be stored within designated areas for hazardous material storage at the BRP site. Stockpiles from the excavation trench would be located immediately adjacent the trench and used for backfill of the trench. Backfilling of trenches would occur approximately daily, but possibly left open for several days or up to a week, depending on construction timing and other construction related scheduling conflicts or unanticipated delays.

Mayacma would also apply for coverage under the Construction Stormwater General Permit (Order 2022-0057-DWQ). The Construction Stormwater General Permit requires submittal of a Notice of Intent; preparation of a Project-specific stormwater pollution prevention plan (SWPPP); and implementation of site-specific BMPs (e.g., elimination, control, or treatment of non-stormwater discharges, pollutant control from wash water, minimizing exposure of hazardous materials to stormwater and precipitation, spill and leak prevention and response, post-construction site stabilization, etc.), and site monitoring to address materials management, non-storm water discharges, sediment discharges, and erosion controls to meet water quality standards. As part of the SWPPP development process, Mayacma would assess the Project's risk to water quality—based on site-specific soil characteristics, slope, and the construction schedule—and would implement appropriate BMPs (e.g., covering of stockpiles, construction watering, stabilized construction entrance/exit, silt fence, etc.) to ensure protection of water quality. Implementation of the SWPPP would be monitored throughout the Project construction by a QSD and Qualified SWPPP Practitioner.

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Figure 1 Response to Question 4

