

DOCKETED

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CALIFORNIA ENERGY COMMISSION



November 20, 2025

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

Dear Brady Olson:

The California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests which is necessary for the staff analysis of the Bottle Rock Geothermal Power Plant petition to amend (PTA) (TN # 262318). The Mayacma Geothermal, LLC, proposes to construct and operate a 7.5-megawatt (MW) Binary Geothermal Power Plant within the Bottle Rock Power Plant (BRPP) site.

These Data Requests seek further information in the area of Biological Resources for both the proposed 7.5 MW Binary project as well as the CEC-licensed 55 MW BRPP, based on the information provided in the PTA.

To assist CEC staff in timely completing its environmental review and to meet the requirements of CEQA (see Cal. Code Regs., tit. 14, §§ 15108, 15109), the CEC staff is requesting responses to the data requests within 30 days. If you are unable to provide the information requested or need to revise the timeline, please let me know within 10 days of receipt of this letter.

If you have any questions, please email me at anwar.ali@energy.ca.gov.

Sincerely,

Anwar Ali

Anwar Ali, Ph.D.

Senior Environmental Planner

Compliance, Monitoring and

Enforcement Unit

Safety and Reliability Branch

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Protection Division

Enclosure: Biological Resources Data Requests Set No. 4.

BOTTLE ROCK GEOTHERMAL POWER PLANT (79-AFC-04C) DATA REQUESTS – SET NO. 4 – BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES UNIT

Author: Alex Single

BACKGROUND: California Code of Regulations, title 20, section 1877(d), Appendix B (g) (13) (B) (ii) requires an aerial map of the isopleth graphic depicting modeled nitrogen deposition rates. The geographical extent of the nitrogen deposition map(s) should include the entire plume and a radius of six miles from the source, specifically identifying acres of sensitive habitat(s) within each isopleth, as well as requiring modeling parameters and files. The Biological Resources section of the Petition to Amend (TN 262182) did not include a discussion of nitrogen deposition impacts, including nitrogen oxides (NO_x) and ammonia (NH₃), associated with the proposed project. Although air emissions from mobile sources, including nitrogen NO_x, were discussed in relation to vehicle trips, no modeling or data were provided to evaluate nitrogen deposition resulting from the proposed project's operational NO_x emissions.

California Code of Regulations, title 20, section 1877(d), Appendix B (g) (13) (E) requires discussion of all impacts including sensitive species habitat impacts from nitrogen deposition. CEC staff evaluates nitrogen deposition impacts by considering sensitive habitat areas within a 6-mile radius of a project site. These include protected areas such as California Department of Fish and Wildlife (CDFW) sensitive natural communities, and U.S. Fish and Wildlife (USFWS) designated critical habitat. Nitrogen-sensitive vegetation communities, such as serpentine habitat, should also be considered in the evaluation. CEC staff have found that by the time the plume has traveled this distance, in-plume concentrations become indistinguishable from background concentrations.

DATA REQUESTS

1. Please perform nitrogen deposition modeling for the proposed project's operational NO_x 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.

BOTTLE ROCK GEOTHERMAL POWER PLANT (79-AFC-04C) DATA REQUESTS – SET NO. 4 – BIOLOGICAL RESOURCES

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.
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).

BACKGROUND: According to Map 3.2-2 on page 51 of the Petition to Amend (TN 262182), the project would install pipeline across five potential streams, three of which are culverted. These features likely would be subject to Section 1600 et seq. of Fish and Game Code. However, according to the Impacts Mapbook attached to the Response to Data Requests Set No. 2 (TN 266283), the pipeline installation across only four potential streams. Based on review of page six of the Impact Mapbook, the pipeline located near coordinates 38.84034, -122.77201 is shown as not crossing a stream; however aerial imagery appears to show a culverted stream at this location. Additional information is needed to clarify potential impacts within these areas and form part of a Lake and Streambed Alteration Application, if necessary.

DATA REQUESTS

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.
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.