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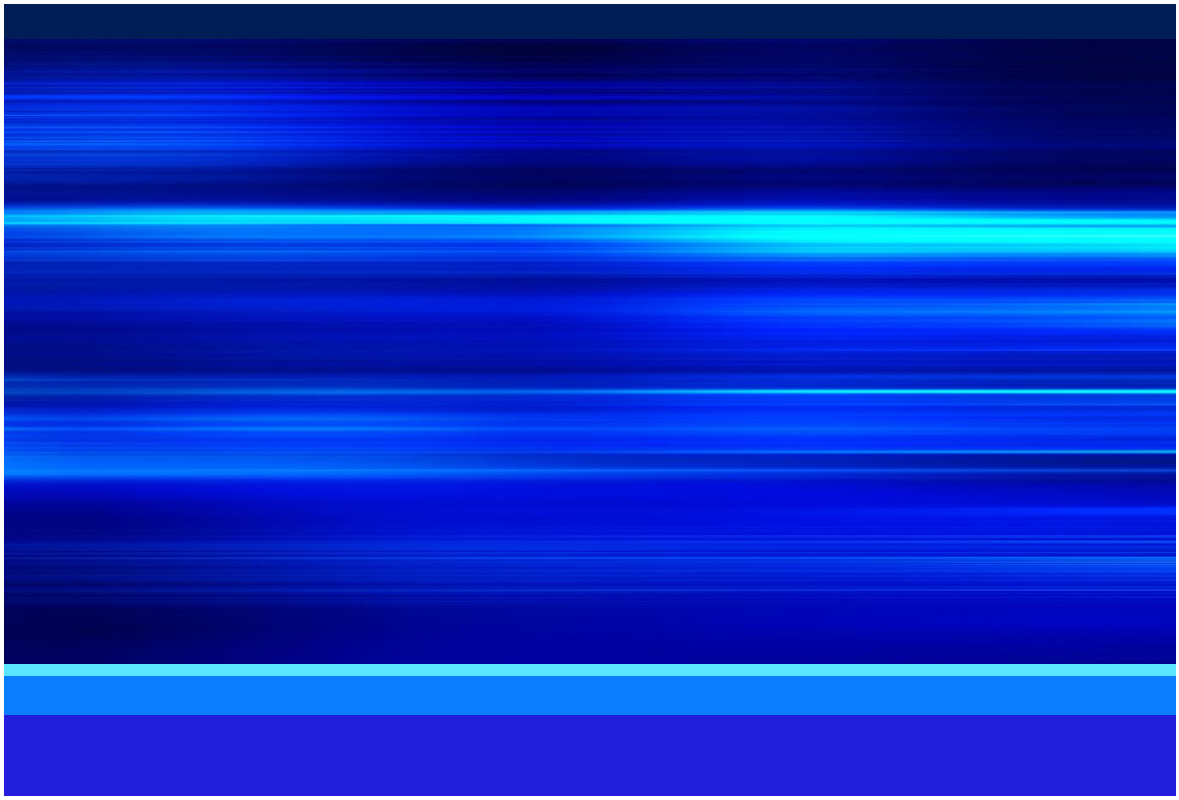
Response to Informal Data Request Set 1

Submitted to
California Energy Commission

Prepared by
Elmore North Geothermal LLC

With assistance from
Jacobs

Elmore North Geothermal Project
(23-AFC-02)
April 26, 2024



Introduction

Attached is Elmore Geothermal LLC's[1] (Applicant) response to the California Energy Commission (CEC) Staff's *Informal Data Request Set 1* regarding the Application for Certification (AFC) for the Elmore North Geothermal Project (ENGP) (23-AFC-02).

New or revised graphics or tables are numbered in reference to the Informal Data Request number. For example, the first table used in response to Informal Data Request 28 would be numbered Table IDR28-1. The first figure used in response to Informal Data Request 28 would be Figure IDR28-1, and so on. Figures or tables from the ENGP AFC that have been revised have a "R" following the original number, indicating a revision.

Additional tables, figures, or documents submitted in response to an informal data request (for example, supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of each discipline-specific section and are not sequentially page numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

[1] An indirect, wholly owned subsidiary of BHE Renewables, LLC ("BHER").

Contents

Acronyms and Abbreviations

AFC	Application for Certification
CEC	California Energy Commission
DP	Desert Pupfish
IDR	Informal Data Request
ENGP	Elmore North Geothermal Project

1. Biological Resources (IDR 1)

Background: Well Pad Protection Measures (IDR 1)

Informal Data Request:

1. *California Energy Commission's (CEC) biological resources staff informally requested additional information regarding flood protection measures for the Elmore North Geothermal Project's (ENGP) production well pads located within Red Hill Bay. Specifically, staff asked about the potential impacts to Desert Pupfish (DP) during a 100-year storm where floodwaters overflow Imperial Irrigation District agricultural drains containing endangered DP, result in DP becoming stranded within the ENGP's production well pads.*

Response: The ENGP's well pads will consist of two to four and a half (2 to 4-1/2) acre elevated, gravel pads, with up to three wells and wellheads on each well pad, and associated pipelines. During construction, the well pad locations will be compacted, graded, graveled, and a nuisance berm erected along the perimeter of the well pad for stormwater management. Once construction is complete, the Applicant will install a normally open drain and valve within the berm at the lowest point of the well pad to allow stormwater to drain off the well pad. The well pad also includes the installation of a well cellar, a subterranean structure that is approximately 10 feet by 10 feet by 10 feet, immediately below the wellhead. This area is covered with grating to allow safe visual inspection of well cellar components. The wellhead and cellar are secured by a locked chain link fence. Gravel and/or soil is in contact with the fence to avoid gaps and discourage animal entry.

In the unlikely event that a storm occurs that possesses the strength for water to breach the Alamo River's banks and/or overflow Imperial Irrigation District agricultural drains, as well as carry desert pupfish unharmed from those locations to one of ENGP's elevated well pads, it is hypothetically possible to trap desert pupfish at the low spot on the well pad next to the well pad's berm, unless a drain is installed at that location on the production well pads. The Applicant understands that CEC biological resources staff are concerned with potential stranding of desert pupfish during such a scenario. Therefore, although the Applicant believes that such storm events resulting in stranding of desert pupfish are unlikely to occur, the Applicant will install drains (valve left in the open position unless well maintenance is occurring) in the berm at the low spot of the well pad along with a quarter-inch screening at the base of the security fencing around the wellheads of the production well pads to eliminate the potential of desert pupfish entering the well cellar space.

The injection well pads are outside of a 100-year flooding event as modeled by the Applicant. Therefore, the Applicant is not proposing similar measures for the injection well pads and associated structures.