

DEPARTMENT OF WATER RESOURCES

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October 2, 2023

Governor's Office of Planning & Research

October 2 2023

Mr. Matthew Johnson
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STATE CLEARINGHOUSE

SCH# 2023080428 Oeste Basins Groundwater Recharge Project Initial Study/Mitigated Negative Declaration (IS/MND)

Dear Mr. Johnson:

The California Department of Water Resources (DWR) has reviewed Mojave Water Agency's (MWA) Mitigated Negative Declaration (MND) for the proposed Oeste Basin Groundwater Recharge Project and has the following comments. These comments are in addition to and independent of the comments submitted by DWR's Division of Safety of Dams under their regulatory program.

General Comment

- Acre Feet per Year

Section 1- Purpose and Scope states the proposed project is designed to draw approximately 3,000 acre-feet/year (Aft/yr) of State Water Project (SWP) water from the California Aqueduct (Aqueduct) for groundwater recharge and storage in the Oeste groundwater subbasin, while sections 2.1.8 Description of Project and 3.1 Background state the proposed project is designed to draw approximately 4,000 Aft/yr of State Water Project water from the Aqueduct. For the purpose of the MND, please clarify the approximate amount of acre-feet of water the project is designed to draw from the Aqueduct.

- The Whole of an Action

Under CEQA, a project is defined as the "whole of an action" with the potential to physically change the environment. Consideration must be given to the total effects of the entire proposal, both immediate and future, including all reasonably foreseeable future projects, expansion of the initial project, and other reasonably foreseeable future activities that will likely change the scope or nature of the initial project or its environmental effects. (Cal. Code Regs., tit. 14, §§ 15130, subd. (a)(b)(1)(A), 15126, 15355, 15142, 15143). A proposed project may be considered part of a larger project for CEQA purposes if the proposed project is a crucial functional element of the larger project such that, without it, the larger project could not proceed.

This project description indicates that the Proposed Project's groundwater recharge water will be extracted at a future date for water supply usage and section 3.1 Background explains that MWA operates groundwater recharge facilities which spread

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imported supplemental SWP supplies into the underlying groundwater basin to supplement native groundwater supplies in areas where the natural groundwater supply is insufficient to meet water usage. Additionally, the background refers to the MWA Water Master 2021 Report and 2015 Urban Water Management Plan which projects local water demand is expected to increase while groundwater elevations in Oeste have been stable or slightly declining for the last 20 years as verified production has been higher than the safe yield of the groundwater basin. To alleviate current deficits in groundwater supply and support future population expansion in the area, groundwater recharge will be a pivotal tool.

Despite this information on the potential future use of the Oeste groundwater recharge project water, withdrawal of the recharge water is not analyzed in the IS/MND. When groundwater is recharged in order to have the water available to be extracted for future use, it is reasonably foreseeable that the groundwater recharge project is a catalyst for future groundwater extraction from the project basin. Consequently, it is likely the recharge and extraction are parts of the whole of an action, resulting in the need to analyze the environmental impacts of both the recharge and extraction in the same CEQA document.

- 2.2 Environmental Analysis and Determination

The IS/MND states that this Initial Study was prepared in consultation with other jurisdictional agencies to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed project. (CEQA Guidelines Section 15063.) MWA did not consult with DWR prior to preparing this MND. DWR would have appreciated the opportunity to participate in consultation had MWA reached out to the department. In the future, please send CEQA notices and draft CEQA documents, including requests for consultation to NotifyDWR@water.ca.gov.

Specific Comments

- 3.4 Project Characteristics – Construction

The Proposed Project anticipates that the site will percolate SWP water into the ground at approximately 2 ft per day. Please include an analysis or facts confirming the mentioned rate and that groundwater mounding would not have adverse impacts to the Aqueduct.

The proposed Project will install four 8-inch diameter flexible suction hoses into the Aqueduct that will feed a new 16-inch underground pipe that will be installed from the Aqueduct to the recharge basin. A 3-foot-deep trench would be excavated for approximately 430 feet from the south edge of the southern basin to the new turnout facility that would be installed at the Aqueduct. Pavement would be installed over the suction pipe within the existing paved area of the DWR access road. A concrete vault to house the flow meter will be installed at the suction hoses in the DWR right-of-way.

The construction project characteristics explain that the Proposed Project will have a permanent underground pipe. Groundwater recharge is not feasible at all locations, so at times project proponents choose to construct portions of a project, such as above-

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ground pipes, as temporary facilities for a period of time to confirm the recharge basin functions as anticipated. This MND indicates the Proposed Project is a permanent structure with no temporary components or phasing of construction. Please either confirm that the Proposed Project analyzed in this MND is a permanent facility constructed in one phase within the time frame described in the MND or add information as to the phasing of the Proposed Project.

Also, since this MND analyzes the construction and use of a recharge facility as a storage facility only, any changes to the facility which may have a significant effect on the environment, such as the withdrawal of water from the basin for consumption or the abandonment of the recharge facility will need to be analyzed in a separate CEQA document.

4.7 Geology and Soils

As discussed above, under Section 3.1 - Background, MWA operates groundwater recharge facilities to supplement native groundwater supplies in areas where the natural supply is insufficient to meet water usage. The recharge area operates by spreading imported supplemental SWP supplies on the surface of the recharge area where the water then percolates down through the soils into the underlying groundwater basin. According to the MWA Water Master 2021 Report and 2015 Urban Water Management Plan, local water demand is expected to increase with forecasted population growth. Local groundwater elevations in Oeste have been stable or slightly declining for the last 20 years as verified production has been higher than the safe yield of the groundwater basin, and currently the Oeste Subarea does not have groundwater recharge facilities. To alleviate current deficits in groundwater supply and support future population expansion in the area, groundwater recharge will be a pivotal tool.

Section 4.7.2 Impact Analysis

MWA concludes that no aspect of the Proposed Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, the potential impacts would be less than significant, and no mitigation is required. MWA refers to the discussion on hazards associated with liquefaction and landslide hazards for the impact analysis. To support this conclusion, please include the Geotechnical Report or subsurface soils exploration or boring logs for the Recharge Basins area in the MND. Also, please indicate clearly the current groundwater elevation at the proposed recharge basin's location by adding it to the plans included in the MND.

While the Proposed Project, as described in the MND, does not include extracting water, as a state agency with expertise on subsidence, DWR provides the following comments as guidance in anticipation of future water extraction at the Proposed Project location, because potential subsidence impacts to subsurface infrastructure at the location of the Aqueduct would need to be analyzed under CEQA. The analysis should be performed on the historic ground surface elevations in the project area, to determine if the area has experienced subsidence. Also, groundwater levels should be analyzed in a similar way, and compared to the subsidence values, to see if there is a correlation. In addition, a

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study should be performed to identify collapsible soils in the project area which could cause shallow subsidence (hydro compaction) near the Aqueduct. Induction of surface water into collapsible soils could cause damage, and potential breach, to the Aqueduct.

Lastly, experience has shown that not all locations are ideal for recharge basin projects. If, after MWA begins excavating the dirt for or completes the Proposed Project, MWA determines the basins are not performing as expected and decides to abandon the project, it is likely that decision would require a new CEQA analysis to analyze the potential environmental impacts of abandoning the Proposed project which modified the surrounding environment.

4.19 Utilities and Service Systems

MWA concludes there would be no impact to utilities and service systems and no mitigation is required because the Proposed Project does not require wastewater, stormwater, electric power, nor natural gas or telecommunications facilities because it is the construction and operations of a water recharge basin.

However, the Proposed Project's installation of four 8-inch diameter flexible suction hoses into the Aqueduct that will feed a new 16-inch pipe that will be installed underground from the Aqueduct to the recharge basin, and the approximately 430-foot long and 3-foot-deep trench that would be excavated from the south edge of the southern basin to the new turnout facility requires construction to modify and expand SWP delivery facilities. Any potential impacts to SWP facilities would need to be considered and mitigated during the right-of-way acquisition and turnout approval process.

4.10 Hydrology and Water Quality

○ 4.10.3 Impact Analysis

Section 3.2 Topography and Soils describes the on-site surface elevation range from approximately 3,468 to 3,485 feet above mean sea level and explains the site slopes gently northward away from the adjacent Aqueduct. Appendix B-1 to this MND explains the Proposed Project site does not currently support any natural drainages, and the braided channels of Montaine Creek within the Proposed Project site are altered and maintained by off-road vehicle use, which has created dirt access roads in the place of the drainage features. The MND concludes that the Aqueduct and residential community south of the Aqueduct and off-road vehicle use have effectively cut off the historic drainage features onsite and no longer convey upstream water flows, and when on-site off-road vehicle travel ceases after the Proposed Project construction, it is expected that upland vegetation would be established in the historic drainages (flowing north away from the Aqueduct). There needs to be an analysis regarding whether the Proposed Project alters the area (off-site) drainage patterns, and if so, whether the Proposed Project routes those flows around the basins or captures the off-site flows in the basin. Provide a pre and post development drainage map for this area showing the impact to existing surface runoff. Clarify the impact from off-site flows being routed around the proposed recharge basins and how it would not create any ponding issues within DWR right of way.

Also, please provide hydrology analysis for this project assessing the impacts to surface runoff and groundwater due to the two recharge basins and its impact (if any) to DWR right of way.

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The study needs to assess the pre and post development peak stormwater runoff rates and the impacts (if any) to DWR right of way. Ultimately DWR is concerned that the conclusion that the Proposed Project has no potential impacts due to runoff is not correct, because the potential impact the proposed recharge basin exceeding its capacity in a storm event and overtops causing flooding within DWR right of way does not appear to be mitigated to less than significant. To reduce the impact to less than significant, we recommend mitigation for the Proposed Project in the form of procedures on how MWA would address a situation where the recharge basins is close to exceeding or beginning to exceed their capacity which may lead to erosion issues and impacts within DWR right of way.

The proposed recharge basins invert elevation is 3463.00 and 3466.00 and the Aqueduct invert at this location is 3456, and the Oeste Hydrologic Sub-Area Hydrologic Report: Figure 4c Oeste groundwater hydrographs from 1990 to present shows the Aquifer Well 05n07w28l01 groundwater elevation has always been below elevation 3000 feet. This means the recharge basins could raise the elevation of the saturated zone above the invert elevation of the Aqueduct resulting in increase of water pressure buildup behind the canal concrete liner panels. How much will the proposed recharge basins adjacent to the Aqueduct raise the groundwater elevation at this site? Please provide some analysis or data showing the extent of saturated soil over time from the recharge basin and what its clearance is to the Aqueduct, provide an analyses to determine if additional setback is required for these basins from DWR right of way boundary to prevent the saturated zone from impacting DWR right of way and provide data confirming that the groundwater table would not rise above the canal invert elevation. The main concern is whether the proposed recharge basins' long-term usage would raise the groundwater table to above the canal invert elevation which would potentially damage the Aqueduct and have a significant impact on the SWP.

The Proposed Project is designed to include any freeboard that would be needed for storm events. To support the conclusion that the designed freeboard is adequate for any storm event, an analysis is needed for the recharge basin size design and the design maximum quantity of water the basin can hold under uncontrolled water discharge, such as during a storm event, including a description of how the design of these basins' freeboard would prevent a basin overflow for the incidence of storm exceeding the design storm which would have the potential to cause flooding, erosion and scour issues within DWR right of way and damage to the Aqueduct. In addition, the freeboard design description should explain why the freeboard manages storm events adequately, so an overflow spillway and channel are not needed to route these excess flows away from DWR right of way and to prevent erosion and scour to the surrounding areas.

Also, please explain the time frame for these basins to drain the design storage volume and how the draw down complies with local jurisdiction requirements (San Bernardino County) for the draw down period. Per San Bernardino County Detention Basin Design Criteria for San Bernardino County Page 4 states *"All detention basin outlets should be sized so the basin will drain within 24 hours after the basin reaches its 100 year peak depth/volume. If the basin does not drain in 24 hours, further studies using longer duration storms will be necessary. The basin storage volume (capacity) may need to be increased to accommodate subsequent storms.* Per Technical Guidance Document Appendix VII Infiltration Rate Evaluation Protocol and Factor of Safety Recommendations Page VII-3 there are also some Infiltration Testing Requirements which would be required if the ponded depth would not drain within 24 hours.

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- New Turnout Facility

Approximately 0.03 acres of the Proposed Project area are within the DWR right-of-way. Due to the connection to the Aqueduct and the new location for SWP water deliveries, this project will require a new delivery structure. For the right of access and new point of delivery, MWA will need DWR's approval in the form of a permanent turnout agreement. Please send your official turnout request letter to:

Tim Kennelly
Assistant Division Manager
Division of Operations and Maintenance
Department of Water Resources
715 P Street, Fifth Floor
Sacramento, CA, 95814
(916) 653-1328

DWR will undertake a more thorough review of the project when MWA provides an official request for a permanent turnout.

If you have any questions or need additional information, please contact me at (916) 820-8124, or Nancy.Finch@water.ca.gov.

Sincerely,

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Nancy Finch
Senior Attorney