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Draft Environmental Impact Report (DEIR) for the Sunset Complex Project (Proposed Project) (SCH No: 2022040167)

South Coast Air Quality Management District (South Coast AQMD) staff appreciate the opportunity to review the above-mentioned document. The City of Pasadena is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff has provided a brief summary of the project information and prepared the following comments which are organized by topic of concern.

Summary of Proposed Project Information in the DEIR

Based on the DEIR, the Pasadena Water and Power Department (PWP) proposes to redevelop its existing Sunset Reservoir Complex, located on a 7.17-acre site, to improve water supply reliability, expand storage and treatment capacity, and meet current seismic and regulatory standards. The Proposed Project would replace aging facilities, relocate certain components, and introduce new infrastructure to support water treatment, disinfection, energy resiliency, and sustainability goals.[1]

The site currently includes two partially buried, concrete-lined reservoirs totaling 15.5 million gallons (MG) of water storage (Reservoir 1: 5.6 MG; Reservoir 2: 9.9 MG), two well facilities (Bangham Well and Sunset Well) with a combined capacity of approximately 4.0 million gallons per day, a Disinfection Facility, the Glorieta Booster Station, and the Sunset Booster Station, which also houses electronic controls for the existing Metropolitan Water District (MWD) point of interconnection.[2]

The reservoirs were originally constructed in the late 1800s to early 1900s with concrete linings, wood-framed roofs, and corrugated steel decking. Four-foot-high concrete walls were added in the 1930s to increase capacity. Inspections have revealed structural cracks in the reservoir walls that leak depending on water levels. To minimize water loss, PWP operates the reservoirs below design capacity, reducing overall system storage. In addition, seismic evaluations have identified significant deficiencies in the existing reservoir roofing system.[3]

[1] DEIR, page 3-1.
[2] DEIR, page 2-2.
[3] *Ibid.*

To address these deficiencies, the Proposed Project would demolish the two existing reservoirs and other obsolete facilities, replace them with modern reservoirs and treatment facilities, and incorporate new energy, resiliency, and sustainability features. The Proposed Project includes four categories of components:[4]

Demolished and/or Removed Components

- Existing Reservoir 1 and Existing Reservoir 2
- Existing Disinfection Facility (some components salvaged for reuse)
- A-Basin inlet structure
- Sunset Well Building and Electrical Transformer Area
- Approximately 31 trees on the Project site
- Existing parking lot (to be replaced in a new configuration)

Components to Remain in Place

- Sunset Booster Station Building (no changes proposed)
- Storage shed associated with Bangham Well
- Oak trees along the west side of the site (approximately 31 trees preserved)

New Components

- Proposed Reservoir 1 would be prestressed concrete with an inside diameter of approximately 210 feet, a total footprint of 36,530 square feet, and a capacity of 4.9 MG
- Proposed Reservoir 2 would be prestressed concrete with an inside diameter of approximately 234 feet, a total footprint of 45,180 square feet, and a capacity of 6.1 MG
- Groundwater Treatment Plant with ion exchange (IX), granular activated carbon (GAC), and ancillary systems
- Disinfection Facility (new facility using salvaged tanks from the existing facility)
- Emergency Diesel Generators:
    - one 1,000-kW diesel generator for the treatment plant and Bangham Well
    - one 1,500-kW diesel generator for the Glorieta Booster Station
- Air Gap Structure (14-ft deep, 12 ft × 8 ft discharge basin, 16.5-ft high manhole)
- Backwash Tank (50,000-gallon, 21 ft tall, 20 ft diameter)
- Reservoir Seismic Isolation Valve System (safety feature to prevent uncontrolled draining during seismic events)
- Stormwater Treatment Structures (three below-grade biofiltration basins per Low Impact Development requirements)
- Solar Canopies and Rooftop Solar Panels (above parking lot and on new reservoirs, with inverters and utility connections)
- Electric Vehicle Charging Stations (50 Level 2 and 3 fast chargers)
- Overflow and Drain systems for new reservoirs

Components with Proposed Improvements

- Bangham Well: replacement of pumps, motors, valves, and piping; demolition of existing retention pond and associated structures
- Glorieta Booster Pump Station: facade modifications and electrical upgrades to accommodate standby generator
- Electrical Equipment Enclosure: upgraded with automatic transfer switch for new generator

[4] DEIR, Table 3-1, page 3-1.

- Driveways: reconfigured to improve truck access and site circulation
- Signal Light and Pedestrian Crosswalk: new safety improvements at the Mountain Street entrance
- Landscaping: new trees and shrubs along Mountain Street and Sunset Avenue, plus parking lot landscaping for screening and aesthetics
- Fencing: replacement fencing to secure the facility

The DEIR staes that past operations at the nearby National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL) have resulted in the release of chemicals of concern (COCs), including volatile organic compounds (VOCs; such as carbon tetrachloride), perchlorate, and 1,2,3-trichloropropane (TCP), among others, into soil, surface water, and groundwater at JPL. JPL is located approximately two miles northwest of the Project site. Some of these chemicals have migrated off-site and have been detected in groundwater at drinking water supply wells owned and operated by PWP and drinking wells owned and operated by the Lincoln Avenue Water Company (LAWC).

Based on a review of aerial photographs, South Coast AQMD staff found that the nearest sensitive receptor (e.g., residential development) is located 55 feet to the east of the project site.

The estimated construction duration for the Sunset Complex Project is 24 months. Specifically, Reservoir 1, the southernmost facility, would be constructed first over 12 months, followed by Reservoir 2 approximately 6 months later. The Groundwater Treatment Plant (GWTP) facilities would be constructed simultaneously with the reservoirs.

South Coast AQMD Comments

Hauling Distance During Construction

The Proposed Project's construction activities include site preparation, grading, building construction, paving, and architectural coating. The DEIR mentions that the grading activities would require export of 3,700 cubic yard of earthwork materials.[5] Even though the DEIR states that All non-recyclable solid waste generated during construction will be taken to a landfill with sufficient permitted capacity, it omits to disclose which landfill and its distance to the project site. However, the CalEEMod inputs in the Appendix B – Air Quality/GHG calculations shows default distance for hauling during both demolition and grading phases.[6] Thus, the air quality analysis during construction is potentially underestimated in the DEIR unless the servicing landfill is within 20 miles radius of the project site. It is essential to include all the emission sources in the air quality analysis to determine the significance level during construction and propose all the feasible mitigation measures to reduce or minimize the impacts. In addition, the information and assumptions should be consistent throughout the CEQA document and its appendices.

Soil Cleanup Plan

Because VOC, COS, and TCP are among the applicable toxic air contaminants listed in South Coast AQMD Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air

[5] DEIR. Page 3-8.
[6] Appendix B- Page 433.

Contaminants,[7] it is recommended that applicable Rule 1466 requirements be incorporated in the cleanup plan and the final CEQA document. More information on Rule 1466 requirements is available on the South Coast AQMD's website.[8]

Assessment of GHG Emissions and Operational Hours for Emergency Generators

The Proposed Project involves the installation of two new diesel-fired emergency generators with a rating of 1,000 and 1,500 horsepower (bhp).[9] The two new emergency generators would require monthly inspections. These inspections would consist of 15-minute tests of the diesel generators to ensure they remain functional in an emergency.[10] Hence, these engines are expected to operate up to 0.25 hours per day and three hours per year for maintenance and testing. The DEIR analysis assumes a total of three hours of operation per year for all purposes during the operation phase of the Proposed Project.

The DEIR indicates that the new emergency standby engine is estimated to emit 2.5 metric tons per year of carbon dioxide equivalents (CO2e).[11] According to the Appendix B, the 2.5 metric tons per year of CO2e is based on an assumption that the emergency standby engine will be operating three hours per year.[12] To provide a more accurate assessment of the potential CO2e emissions for the emergency standby engine, the calculations of CO2e in the DEIR and Appendix B should be updated to reflect 200 hours per year of operation, which represents the maximum potential emissions under a worse-case operational scenario. It is important to note that a South Coast AQMD permit for the emergency standby engine is required and may include a permit condition based on a potential to emit (PTE) that allows for operation of up to 200 hours per year, and which may also specify a maximum of 50 hours per year for conducting maintenance and testing. However, if the analysis in the DEIR is not updated to reflect 200 hours per year of operation, then a permit condition will be applied which limits the hours of operation of the emergency standby engine to align with the number of hours analyzed in the DEIR (e.g., three hours per year).

South Coast AQMD Air Permits and Role as a Responsible Agency

If implementation of the Proposed Project would require the use of new stationary and portable sources, including but not limited to emergency generators, fire water pumps, boilers, etc., air permits from South Coast AQMD will be required. The Final EIR should include a discussion about the potentially applicable South Coast AQMD rules that may be applicable to the Proposed Project. Those rules may include, for example, Rule 201 – Permit to Construct,[13] Rule 203 – Permit to Operate,[14] Rule 401 – Visible Emissions,[15] Rule 402 – Nuisance,[16] Rule 403 – Fugitive Dust,[17] Rule 1110.2 – Emissions from Gaseous and Liquid Fueled Engines,[18] Rule 1113 – Architectural

[7] South Coast AQMD Rule 1466. Accessed at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf.
[8] South Coast AQMD. Compliance. Rule 1466. Accessed at: http://www.aqmd.gov/home/rules-compliance/compliance/rule-1466.
[9] DEIR, Table 3-1, page 3-1.
[10] DEIR, Page 3-16.
[11] DEIR, Table 4.5-3.
[12] Appendix B, Page 438.
[13] South Coast AQMD, Rule 201 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-201.pdf
[14] South Coast AQMD, Rule 203 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-203.pdf
[15] South Coast AQMD, Rule 401 is available at: https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-401.pdf
[16] South Coast AQMD, Rule 402 is available at: https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf
[17] South Coast AQMD, Rule 403 is available at: https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403
[18] South Coast AQMD, Rule 1110.2 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1110_2.pdf

Coatings,[19] Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil,[20] Rule 1179 – Publicly Owned Treatment Works Operations,[21] Regulation XIII – New Source Review,[22] Rule 1401 – New Source Review of Toxic Air Contaminants,[23] Rule 1403 – Asbestos Emissions From Demolition/Renovation Activities, [24] Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants,[25] Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines,[26] etc. It is important to note if air permits from South Coast AQMD are required, the role of South Coast AQMD would change from a Commenting Agency to a Responsible Agency under CEQA. In addition, if South Coast AQMD is identified as a Responsible Agency, per CEQA Guidelines Sections 15086, the Lead Agency is required to consult with South Coast AQMD.

CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Moreover, it is important to note that if a Responsible Agency determines that a CEQA document is not adequate to rely upon for its discretionary approvals, the Responsible Agency must take further actions listed in CEQA Guideline Section 15096(e), which could have the effect of delaying the implementation of the Proposed Project. In its role as CEQA Responsible Agency, the South Coast AQMD is obligated to ensure that the CEQA document prepared for this Proposed Project contains a sufficient project description and analysis to be relied upon in order to issue any discretionary approvals that may be needed for air permits.

For these reasons, the final CEQA document should be revised to include a discussion about any and all new stationary and portable equipment requiring South Coast AQMD air permits, provide the evaluation of their air quality and greenhouse gas impacts, and identify South Coast AQMD as a Responsible Agency for the Proposed Project as this information will be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at https://www.aqmd.gov/home/permits.

Conclusion

As set forth in California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(a-b), the Lead Agency shall evaluate comments from public agencies on the environmental issues and prepare a written response at least 10 days prior to certifying the Final EIR. As such, please provide South Coast AQMD written responses to all comments contained herein at least 10 days prior to the certification of the Final EIR. In addition, as provided by CEQA Guidelines Section 15088(c), if the Lead Agency's position is at variance with recommendations

[19] South Coast AQMD, Rule 1113 is available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf
[20] South Coast AQMD, Rule 1166 isa vailable at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1166.pdf
[21] South Coast AQMD, Rule 1179 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1179.pdf
[22] South Coast AQMD, Regulation XIII is available at: https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiii
[23] South Coast AQMD, Rule 1401 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf
[24] South Coast AQMD, Rule 1403 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1403.pdf
[25] South Coast AQMD, Rule 1466 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf
[26] South Coast AQMD, Rule 1470 is available at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf

provided in this comment letter, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided.

Thank you for the opportunity to provide comments. South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Jivar Afshar, Air Quality Specialist, at jafshar@aqmd.gov should you have any questions.

Sincerely,

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