# Appendix A

Metropolitan Standard Practices

# SECTION 01065
# ENVIRONMENTAL COMPLIANCE REQUIREMENTS

***Note to Specifier (NTS): This Master Specification is not a "standard" specification but a baseline template to tailor for specific project needs. Ensure that editing is consistent with other contract documents.***

1. ***Revise text or numbers in brackets [ ].***
2. ***If there is text that does not apply to the project, including optional text identified with a ★, delete the text and type "(Not Used)" next to the article heading. Do not delete article section headings.***
3. ***Verify cross-references when adding or deleting any text.***

***Consult the Metropolitan discipline technical lead with any questions.***

***NTS: Ensure all CEQA mitigation measures and/or permit conditions which must be implemented by Contractor are covered in this section.***

***NTS: When using this section, include the following sections in the project specifications as applicable:***
***01010, Summary of Work***
***01060, Safety and Regulatory Requirements***
***★01070, Storm Water Pollution Prevention Plan (SWPPP)***
***★01072, Water Pollution Control Plan (WPCP)***
***★01300, Submittals***
***★01530, Temporary Fences***
***★01550, Access, Parking, and Traffic***
***★01565, Noise Control***
***★02110, Clearing, Grubbing, and Stripping***
***★02140, Dewatering***

## PART 1 GENERAL

1.01 GENERAL

***NTS: Fill in all areas as appropriate or identify these areas on the drawings. ERAs/ESAs requirements must be project specific (e.g., Fenced? Flagged? Staked? Subject to EPS review).***

A. Metropolitan holds the Contractor and all subcontractors liable for meeting the conditions stated herein and in all of Metropolitan's permits and local, state, and federal environmental regulations, acts, laws, and ordinances.

B. The Contractor shall obtain necessary local, state and federal environmental permits and shall comply with the requirements of all such permits and laws, regulations, acts, codes and ordinances. Metropolitan will provide Contractor with copies of all environmental permits obtained by Metropolitan.

C. The Contractor shall perform all construction activities only within the construction boundaries shown on the drawings.[ The construction boundaries shall be fenced as specified in this section[ and Section 01530, Temporary Fences], unless otherwise directed by the Engineer.] The Contractor shall submit in writing a request to use any area outside the construction boundaries for any activity for authorization by the Engineer.

D. ★The Contractor and all employees shall attend an Employee Orientation Meeting with the Engineer and Metropolitan's designated environmental monitor. The Employee Orientation Meeting will inform all employees of the potential for encountering cultural resources; the sensitivity of the area in which they will be working; environmental measures and requirements; the prevention of harm, harassment, injury, or death of wildlife; and minimization or avoidance measures for sensitive resources.

E. ★The Contractor shall notify the Engineer two weeks prior to any activity within 500 feet of Environmentally Sensitive Areas (ESAs) or Environmental Restricted Areas (ERAs). The Contractor shall notify the Engineer of all proposed activities within ESAs to ensure compliance with all conditions and mitigation measures. The Engineer will, or the Contractor shall as directed by the Engineer, flag or stake the limits of ESAs/ERAs. The Contractor shall fence the ESAs/ERAs limits, as required by the Engineer.

F. ★Metropolitan is responsible for contracting any environmental monitors, mitigation monitors, qualified biologists, qualified archaeologist, qualified paleontologist, or qualified architectural historians required under this specification.

1.02 SUBMITTALS

A. ★Submittals shall be in accordance with Section 01300, Submittals, and this section.

B. ★Action Submittals

1. ★All environmental or otherwise applicable permits procured by the Contractor.
2. A current copy of each construction vehicle's certified tier specifications and Best Available Control Technology (BACT) documentation.
3. Annual copies of the CARB Certificate of Reported Compliance for the Off-Road Diesel Vehicle and Advanced Clean Fleet Regulations.
4. ★All local air quality management district permits or CARB certifications for equipment and vehicles being used by the Contractor.
5. ★Noise Control Plan: The plan shall address requirements specified in this section[ and Section 01565, Noise Control].
6. ★Rideshare Plan: A Rideshare Plan for construction employees shall be developed and implemented. The trip reduction plan shall be applicable during the full term of the contract. The trip reduction plan must include rideshare and transit incentives for construction personnel. The plan shall address requirements specified in this section[ and Section 01550, Access, Parking, and Traffic].

1.03 SITE ACTIVITIES

***NTS: Review and coordinate with Section 02110 to ensure project specific conditions are included (i.e., stripping depth).***

A. ★The Contractor shall clear, grub, and strip construction areas as specified in Section 02110, Clearing, Grubbing, and Stripping.

B. ★Staging, stockpiling, and storage areas for vehicles, equipment, and material shall be located outside of any surface water body, drainage channel, [★or ESAs/ERAs].

C. ★The Contractor shall not enter or drive through any surface water body, drainage channel, [★or ESAs/ERAs], unless noted otherwise.

D. ★No debris, soil, silt, sand, bark, slash, sawdust, asphalt, rubbish, paint, oil, cement or concrete or washings thereof, oil or petroleum products, or other organic or earthen materials from construction activities, including stockpiles, shall be allowed to enter into or placed where it can be washed into any surface water body, drainage channel, [★the Colorado River Aqueduct (CRA),] [★or ESAs/ERAs].

E. ★The Contractor shall implement measures to prevent debris, dust, liquid, and other objects from falling into the water while working over or near water surfaces.

F. ★No excess materials, rubbish, or debris shall be deposited within [choose appropriate project-specific distance] feet of any surface water body or drainage channel [★or ESAs/ERAs].

***NTS: Use the following paragraph only for desert locations.***

G. ★No excess materials, rubbish, or debris shall be deposited within 300 feet of the CRA.

H. ★No fueling or maintenance shall be done within [choose appropriate project-specific distance] feet of any surface water body or drainage channel [★or ESAs/ ERAs] or where petroleum products or other pollutants may enter these areas under any flow.

***NTS: Use the following paragraph only for desert locations.***

I. ★No fueling or maintenance shall be done within 500 feet of natural drainage swales or the CRA or where petroleum products or other pollutants may enter these areas under any flow.

J. ★Any equipment or vehicle to be driven and/or operated within a surface water body, drainage channel, or drainage swale shall be checked and maintained daily to prevent leaks of materials.

K. Stationary equipment such as motors, pumps, and generators, shall be equipped with drip pans, which are secured to prevent shifting or overturning in the event of high winds.

L. ★The Contractor shall dispose of excess materials, debris, and rubbish in approved off-site locations consistent with the requirements of issued disposal permits and applicable local, state, and federal laws and regulations.

1. The Contractor is responsible for obtaining all environmental permits and submitting them to the Engineer for authorization prior to site preparation or disposal of the materials at the approved off-site location.

2. Permission of property owner does not preclude the Engineer from rejecting a disposal site.

M. The Contractor shall dispose of all hazardous materials in accordance with Section 01060, Safety and Regulatory Requirements.

N. The Contractor shall handle, store, apply, and dispose of chemicals and/or herbicides consistent with all applicable federal, state, and local regulations.

O. The Contractor shall clean up all spills in accordance with all applicable environmental laws and regulations and notify the Engineer immediately in the event of a spill.

P. Unless otherwise shown on the drawings, the Contractor shall return all Contractor yard and laydown areas to the original topographic conditions.

Q. ★The Contractor shall stabilize exposed slopes, streambeds, and streambanks that are located within the construction limits.

R. The Contractor shall not create a nuisance or pollution as defined in the California Water Code. The Contractor shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Quality Control Board or the State Water Resources Control Board, as required by the Clean Water Act.

S. ★Dewatering activities (e.g., for nuisance water or groundwater) shall not affect any vegetation outside of the construction limits. Dewatering shall be in accordance with Section 02140, Dewatering.

T. ★The Contractor shall ensure that vehicles and equipment brought on-site shall be decontaminated in accordance with federal and state publications for controlling the spread of noxious weeds, invasive species, and disease, which includes inspecting all vehicles, tools, boots, and other project-related equipment, and removing all visible soil/mud, plant materials, and animal remnants prior to entering and exiting the project site. Rules and guidelines are available at: https://www.fs.fed.us/eng/pubs/pdf/05511203.pdf

1. The Contractor shall complete the Certification of Clean Equipment prior to any vehicles or equipment entering the project site (see Attachment A).

2. The Contractor shall decontaminate all tools, boots, and other equipment prior to entering and exiting the project site and/or between each use at different sites to avoid the introduction and transfer of organisms between locations.

   a. The Contractor shall decontaminate project gear and equipment by thoroughly scrubbing equipment, especially small crevices such as bootlaces, seams, net corners, etc., with a stiff-bristled brush to remove all organisms. Guidelines are available at: https://www.cal-ipc.org/docs/bmps/dd9jwo1ml8vttq9527zjhek99qr/BMPsTransportUtilityCorridors.pdf

3. The Contractor shall power-wash all vehicles and equipment prior to entering the project site.

   a. Power-washing vehicles includes washing all mud and debris on and under the vehicle (powertrain), bumpers, and especially, tires. Guidelines are available at: https://www.cal-ipc.org/docs/bmps/dd9jwo1ml8vttq9527zjhek99qr/BMPLandManager.pdf

b. The Contractor shall repeat the decontamination process and re-certify a vehicle or piece of equipment if it has been removed from the site, used at a different site then later returned to the project site, or as deemed necessary by the Engineer.

***NTS: Consult with Safety and Regulatory Services (SRS) for requirements in below article.***

1.04 AIR POLLUTION CONTROL

A. ★The Contractor shall not discharge smoke, dust, or other air contaminants into the atmosphere in a quantity that is greater than 20% opacity (Ringlemann 1) for more than 3 minutes in a 1-hour time period as required by [SCAQMD/MDAQMD Rule 401].

B. The Contractor shall use renewable diesel (R99 or R100) for all construction vehicles and equipment as required by CARB where feasible. The Contractor must demonstrate that renewable diesel is not available through normal fueling mechanisms for the Engineer's authorization to use ultra-low sulfur diesel (ULSD). [Include additional mitigation measures required by CEQA.]

C. ★The Contractor shall use low emission mobile construction equipment during site preparation, grading, excavation, and construction of the project.

D. The Contractor shall not idle the vehicle primary diesel engine for greater than 5 minutes at any location, except as allowed by CARB regulation: Title 13 CCR, Division 3, Chapter 10, Section 2485.

E. Construction equipment shall be maintained, and properly tuned and operated in a manner to reduce peak emission levels.

F. Dust Control

1. The Contractor shall provide effective measures to prevent operations from producing dust in amounts damaging to personnel, property, Metropolitan plant operations, plants, or animals, and to prevent causing a nuisance to persons living or occupying buildings in the vicinity.

2. Construction methods shall include dust reduction activities, including the use of water trucks in construction areas dust suppressants, and track-out control devices (e.g., gravel and tire cleaning grids).

3. The Contractor shall spray water as often as required to minimize dust and particulates or apply a dust inhibiting surface treatment to avoid production of dust as determined by the Engineer in areas used as construction roads or other purposes in connection with the work.

   a. The Contractor shall continuously maintain this surface condition during the entire construction period.

   b. The Contractor's construction facilities shall be operated in a manner ensuring minimum dust production.

   c. The Contractor shall water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks.

4. Paved streets shall be swept if silt is carried onto these roads from construction activities. Track-out shall not extend greater than 25 feet cumulatively in any direction.

5. The Contractor shall cover or moisten with water trucks transporting soil or debris to suppress the dispersion of dust.

6. The Contractor shall cover all trucks transporting earthen material or maintain at least 2 feet of freeboard.

G. The Contractor shall use existing onsite power sources (e.g., power poles) rather than portable generators when feasible; or clean fuel generators shall be used rather than temporary generators powered by fossil-fuel when feasible. If a portable generator is powered by an engine rated over 50 bhp, it shall be CARB registered or permitted by the local air district.

H. The Contractor shall use 2010 model year engines or 2010 model year equivalent emissions engines on diesel haul trucks, where available. At a minimum, the Contractor shall use engines that adhere to the CARB Truck and Bus Regulation: Title 13 CCR, Division 3, Chapter 1, Article 4.5, Section 2025.

***NTS: Use following paragraph if mitigation measures are required under CEQA.***

I. ★All off-road diesel-fueled construction vehicles greater than 25 horsepower (hp) shall be compliant with federally mandated clean diesel engines emissions (US Environmental Protection Agency Tier 4), where available. [Include additional mitigation measures required by CEQA.]

J. All off-road diesel-fueled construction vehicles shall be in accordance with CARB's In-use Off-road Diesel-fueled Fleet Regulation: Title 13 CCR, Division 3, Chapter 9, Article 4.8.

1. The Contractor shall submit a current copy of each construction vehicle's certified tier specifications, BACT documentation, or the CARB Certificate of Reported Compliance Off-Road Diesel Vehicle Regulation and be labeled with the CARB issued Equipment Identification number (EIN).

K. All portable engines greater than 50 hp and equipment shall be compliant with CARB's Portable Equipment Registration Program (PERP) Regulation: Title 13 CCR, Division 3, Chapter 9, Article 5; the Portable Engine Air Toxics Control Measures of Title 17 CCR, Division 3, Chapter 1, Subchapter 7.5, Section 93116; and local air district rules.

1. All applicable equipment must have valid CARB registrations or local air quality management district permits.

L. ★The Contractor shall notify the local air district in accordance with the CARB PERP Regulations specified timeframes for any construction projects that have fleets of PERP engines that exceed 2,500 combined hp or greater and if units are scheduled to be onsite for more than 5 days.

1. The Contractor shall ensure that project Particulate Matter (PM) emissions shall not exceed more than 82 pounds per day as required by CARB regulations: CCR Title 13, Division 3, Chapter 9, Article 5, Sections 2455-2459.

M. ★For sites contaminated with Volatile Organic Compounds (VOCs) and/or toxic air contaminants, the Contractor shall follow all requirements of SCAQMD Rule 1166 for VOC Emissions from Decontamination of Soil and/or Rule 1466 for Control of Particulate Emissions from Soils with Toxic Air Contaminants, including but not limited, to providing authorized mitigation plans and conducting dust monitoring, and required notifications.

N. ★Traffic speeds on all unpaved roads shall be [20] mph or less as posted.

***NTS: Delete Rule 403.1, if not within the Coachella Valley Blowsand Zone.***

O. The Contractor shall comply with [SCAQMD and/or MDAQMD] Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust)[, and SCAQMD Rule 403.1 (Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources)]. Copies of the Rules shall be kept at the site. Special attention shall be directed toward the following:

***NTS: Delete if within MDAQMD.***

1. ★The Contractor shall not discharge from any source air contaminants (e.g., smoke or dust) which exceed the legal limits endanger, or cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.

***NTS: Delete if within MDAQMD. Delete Rule 403.1, if not within the Coachella Valley Blowsand Zone.***

2. ★The Contractor shall implement the Best Available Control Measures (BACM) listed in Table 1 of SCAQMD Rule 403[ and Rule 403.1].

3. ★The Contractor shall comply with the Large Operation requirements (50 or more acres of disturbed surface area or earth moving operations of 5,000 cubic yards/day for more than 3 days) which include but are not limited to notification to SCAQMD and use of BACM listed in Table 2 of SCAQMD Rule 403.

***NTS: Delete if within MDAQMD. Delete Rule 403.1, if not within the Coachella Valley Blowsand Zone.***

4. ★When wind speeds, including instantaneous gusts, exceed 25 miles per hour, the Contractor shall implement and record Contingency Control Measures listed in Table 3 of SCAQMD Rule 403[ and Rule 403.1].

P. ★For sites conducting abrasive blasting, only CARB certified abrasives shall be used. The abrasive blasting equipment shall possess a local air district permit or CARB registration. Blasting of any materials that may contain toxics shall be confined and be used in conjunction with a permitted negative air machine. The Contractor shall comply with the following opacity/Ringlemann limits based off activity:

1. Confined blasting--20% opacity/Ringlemann 1

2. Unconfined blasting--40% opacity/Ringlemann 2

***NTS: Delete if within MDAQMD.***

Q. ★Any temporary batch plant located on site shall have the appropriate local air district operating permit. The operator of the plant shall use dust suppressants or other dust control measures at each source during loading, unloading, or transferring activities to limit fugitive dust emissions. These control measures shall apply to conveyors, crushing equipment, screening equipment, and storage piles. The operator shall comply with all requirements of SCAQMD Rule 1157.

***NTS: Delete if within MDAQMD.***

R. ★The Contractor shall use only approved asbestos removal procedures as identified in SCAQMD Rule 1403, including but not limited to, notification of the intent to conduct any demolition or renovation no later than 10 days prior to the activity.

***NTS: Delete if within SCAQMD.***

S. ★ The Contractor shall complete the MDAQMD Asbestos Checklist (available at: ca.gov) and, as applicable, submit a Notification of Demolition/Renovation to MDAQMD 10 working days prior to the start of any demolition or renovation work. The Contractor shall adhere to all work practices as specified in the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), CFR Title 40 Part 61, Subpart M.

***NTS: Use Article 1.05 for non-desert locations.***

1.05 BIOLOGICAL RESOURCES

A. As part of the project, the following procedures shall be implemented to avoid adverse impacts to sensitive biological resources, especially the [identify sensitive species (e.g., coastal California gnatcatcher)].

1. ★Prior to commencing construction or mobilization activities, a Metropolitan biologist will conduct a survey(s) to ensure avoidance of any sensitive resources during construction activities. Following the survey(s), Metropolitan may provide sensitive resource avoidance recommendations as appropriate.A Metropolitan biologist may be present onsite throughout the duration of the work at the discretion of Metropolitan to monitor all construction activities.

   a. ★The biologist will oversee compliance with protective stipulations for [list sensitive species], as necessary.

   b. The biologist shall be present when the Contractor establishes the construction limits as shown on the drawings and/or installs temporary fencing or other site boundary markers. All temporary fencing or other markers shall be clearly visible to construction personnel.

   c. Prior to any construction or grading activities, the biologist will provide education to all project personnel regarding the prevention of harm, harassment, injury, or death of wildlife and minimization or avoidance of sensitive resources. The instruction shall be given as often as necessary to ensure that all personnel working on site are adequately briefed in the matter.

   d. The biologist will be empowered to temporarily halt construction activities and make recommendations to ensure impact minimization, compliance with the relevant provisions of all environmental permits and regulations, and that work does not take place in habitat areas outside the clearing limits.

   e. ★No construction access, parking, or storage of equipment or materials is permitted within ESAs/ERAs, unless authorized by the Engineer.

   f. The Contractor shall cover all open trenches when not in use at the end of each workday.

B. ★As part of the project, the following procedures shall be implemented to avoid adverse impacts to trees located within the project work limits:

1. ★The Contractor shall avoid stockpiling of materials and driving or parking vehicles and equipment under the canopy of existing trees to protect tree root systems and avoid damage to the trees, where trees and work limits are not on concrete or asphalt.

2. No trees within project work limits shall be removed, cut, or trimmed unless identified on the drawings, or authorized in advance by Metropolitan.

   a. Per applicable local tree ordinances, required permits shall be obtained prior to any tree removal, cutting, or trimming.

3. Trees designated for removal shall be removed in accordance with the Migratory Bird Treaty Act and California Fish and Game Code §3503.

***NTS: Use Article 1.06 for desert locations.***

1.06 ★BIOLOGICAL RESOURCES (DESERT LOCATIONS)

A. As part of the project, the following standard operating procedures will be implemented to avoid adverse impacts to sensitive biological resources, especially the desert tortoise [and other sensitive species, as necessary].

1. ★Prior to commencing construction or mobilization activities, a Metropolitan biologist will conduct a survey(s) to ensure avoidance of any sensitive resources during construction activities. Following the survey(s), Metropolitan may provide sensitive resource avoidance recommendations as appropriate.

2. A Metropolitan biologist may be present onsite throughout the duration of the work at the discretion of Metropolitan to monitor all construction activities.

   a. The biologist will oversee compliance with protective stipulations for the desert tortoise [and other sensitive species, as necessary].

***NTS: If other sensitive species are identified in addition to the desert tortoise, include any additional protective stipulations below, as necessary.***

   b. Prior to commencing construction or mobilization activities, the biologist will survey for desert tortoise burrows or other desert tortoise sign at all work sites, including laydown and storage areas, and site access routes. Surveys shall be conducted according to the U.S. Fish and Wildlife Service document "Preparing for Any Action that May Occur Within the Range of the Mojave Desert Tortoise. Any desert tortoise burrows located during these surveys will be flagged and/or fenced to ensure avoidance during construction activities as specified in this section[ and Section 01530, Temporary Fences].

   c. All Contractor's, subcontractors,' and suppliers' personnel who work onsite during construction shall participate in a desert tortoise awareness training program given by Metropolitan prior to being allowed to work on the site, which covers the following topics:

      (1) Distribution, occurrence and habitat requirements of the desert tortoise in the southwestern United States,

      (2) General behavior and ecology of the tortoise,

      (3) Sensitivity to human activities,

      (4) Legal protection,

      (5) Penalties for violations of state or federal laws,

      (6) Reporting requirements, and

      (7) Project protective measures.

   d. The biologist shall be present when the Contractor establishes the construction limits shown on the drawings and any necessary access routes, and installs temporary fencing or other site boundary markers. All temporary fencing or other markers shall be clearly visible to construction personnel. Special habitat features, such as burrows, identified by the biologist shall be avoided.

   e. Access to the project sites shall be restricted to existing routes of travel as shown on the drawings, or as designated by the Engineer in the field. Driving off-road is prohibited at all times.

   f. Prior to commencing any dewatering operations, the biologist will survey the discharge water flow path to ensure that no desert tortoises are at risk from the discharge.

   g. All workers shall inspect for tortoises under vehicles or stationary equipment prior to moving them. If a desert tortoise is present, the worker shall carefully move the vehicle or equipment only when the desert tortoise would not be injured or shall wait for the desert tortoise to move away on its own.

   h. The Contractor shall cover all open trenches when not in use at the end of each workday.

   i. Dogs or any other pets or animals shall not be allowed in any work area.

j. All trash and food items shall be promptly contained within closed, raven-proof containers and regularly removed from the site to reduce the attractiveness of the area to wildlife, especially ravens, and other tortoise predators.

k. The biologist will be empowered to temporarily halt construction activities and make recommendations to ensure impact minimization, compliance with the relevant provisions of all environmental permits, and that work does not take place in habitat areas outside the clearing limits.

***NTS: Use the following if there are ESAs/ERAs.***

l. ★The Contractor shall not allow access, parking, or storage of equipment or materials within ESAs and ERAs unless authorized by the Engineer.

B. Traffic speed limit shall be [20] miles per hour on all unpaved roads. The purpose of this speed limit is to enable drivers sufficient time to identify and to avoid striking and killing desert tortoises. Metropolitan will issue the Contractor a warning for the first violation of the speed limit by any of his/her employees, subcontractors, and/or suppliers. Subsequently, Metropolitan reserves the rights to expel from the project repeat speeding offenders, or a first-time offender depending on the severity of the violation as determined by Metropolitan.

C. ★As part of the project, the following procedures shall be implemented to avoid adverse impacts to trees located within the project work limits:

1. ★The Contractor shall avoid stockpiling of materials and driving or parking vehicles and equipment under the canopy of existing trees to protect tree root systems and avoid damage to the trees, where trees and work limits are not on concrete or asphalt.

2. No trees within project work limits shall be removed, cut, or trimmed unless identified for removal on project drawings, or authorized in advance by Metropolitan.

a. Per applicable local tree ordinances, required permits shall be obtained prior to any tree removal, cutting, or trimming.

3. Trees designated for removal shall be removed in accordance with the Migratory Bird Treaty Act and California Fish and Game Code §3503.

1.07 ★MIGRATORY BIRD TREATY ACT AND CALIFORNIA FISH AND GAME CODE §3503

A. No physical disturbance of vegetation, operational structures (e.g., inlet/outlet towers, overhangs, etc.), buildings, or other potential habitat (e.g., open ground, gravel, construction equipment or vehicles, etc.) that may support nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code §3503 shall occur in the breeding season, unless authorized by the Engineer.

***NTS: Use the following paragraph only for desert locations. Change breeding period based on project location, local and annual climatic conditions, and in consultation with a qualified biologist, as needed.***

1. ★The breeding season in the desert typically extends from January 15 through July 15 but can vary based on local and annual climatic conditions.

***NTS: Change breeding period based on project location, local and annual climatic conditions, and in consultation with a qualified biologist, as needed.***

2. The breeding season extends from [specify date] to [specify date].

3. If nesting habitat must be cleared or project activities must occur in the vicinity of nesting habitat within the breeding season as defined above, a qualified biologist will perform a nesting bird survey no more than [insert number of days; typically between 3-5 days] days prior to clearing or removal of nesting habitat or start of project activities.

4. If active nests for sensitive species, raptors, and/or migratory birds are observed, an adequate buffer zone or other avoidance and minimization measures may be established until the young have fledged and are no longer reliant on the nest, as identified by a qualified biologist and authorized by the Engineer. If a buffer is necessary it will be clearly marked in the field by the Contractor, as directed by the Engineer, and construction or clearing will not be conducted within this zone.

5. A qualified biologist will monitor active nests or nesting bird habitat within or immediately adjacent to project construction areas and the Engineer will provide necessary recommendations to the Contractor to minimize or avoid impacts to protected nesting birds.
6. If implementation of avoidance and minimization measures is not feasible, the qualified biologist responsible for monitoring will be empowered to temporarily halt construction activities, until the young have fledged and are no longer reliant on the nest or biological monitoring indicates that construction can proceed with no impacts to the nest and/or young.

***NTS: The following article is not necessary if there is no ground-disturbance.***

1.08 ★CULTURAL AND PALEONTOLOGICAL RESOURCES

A. Cultural and paleontological resources may include, but are not limited to: prehistoric artifacts, grave goods, funerary objects, human remains, historic can scatters, building foundations, historic buildings, structures, objects, and fossils.

B. ★Archaeological and/or paleontological surveys of the project area have been conducted; however, discoveries of previously unknown archaeological and paleontological resources or buried deposits may be possible during construction.

C. ★The Contractor shall not infringe upon any areas identified as a cultural or paleontological area, whether they have been identified as an ESA/ERA or not. Any person identified trespassing upon restricted areas shall be immediately removed from the project.

D. If archaeological or paleontological resources are encountered at the project site, the Contractor shall not disturb the resources and shall immediately:

1. Cease all work within 50 feet of the discovery
2. Notify the Engineer
3. Protect the discovery area, as directed by the Engineer
4. The Engineer, with the qualified architectural historian, archaeologist and/or paleontologist, will make a decision of validity of the discovery and designate an area surrounding the discovery as a restricted area. The Contractor shall not enter or work in the restricted area until the Engineer provides written authorization.

E. ★Ground-disturbing activities will be monitored by a qualified archaeologist or paleontologist.

1. The Engineer and monitor will conduct a review of the location for the boundaries of the archaeological/paleontological monitoring area.
2. Temporary fencing or other restricting features may be used to define the boundaries of the monitoring area. The Contractor shall not work within the monitoring area boundaries unless the monitor is present.
3. The Contractor shall submit to the Engineer, a schedule of days to be worked, at least five working days prior to work within the monitoring area.
4. If any cultural materials are observed during ground disturbance, the Contractor shall follow the procedures outlined hereinabove.

1.09 ★HUMAN REMAINS

A. In the event that human remains are discovered during excavation/construction activity, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5 (e), and Public Resources Code Section 5097.98 shall apply. The Contractor shall notify the Engineer at once and not enter or work in the restricted area until the Engineer provides written authorization.

1.10 WILDFIRE PROTECTION

A. Gasoline-powered or diesel-powered machinery used during construction shall be equipped with standard exhaust controls and muffling devices that also act as spark arrestors.

1.11 HAZARDOUS MATERIALS

A. Handling of hazardous materials shall be in accordance with Section 01060.

1.12 LIGHT ABATEMENT

A. The Contractor shall exercise special care to direct floodlights to shine downward. Floodlights shall be shielded to avoid a nuisance to the surrounding areas.

B. No lighting shall include a residence or native area in its direct beam.

C. The Contractor shall correct lighting nuisance whenever it occurs.

1.13 ★MONITORING

A. Metropolitan is required to comply with the state and federal environmental regulations, which may require monitoring.

B. ★Metropolitan is required under the California Environmental Quality Act (CEQA) to provide mitigation monitoring in accordance with the [insert CEQA document name], [and to comply with the USFW S/ACOE/CDFW/RWQCB (10(a) *or* Section 7/1602/404/401, etc.) permit(s) issued for this project] [if permit is required]. The Contractor shall comply with the mitigation monitoring plan as specified herein and as directed by the Engineer.

C. Metropolitan's monitors will monitor construction activities to ensure that all conditions are implemented; however, the Contractor is responsible for their implementation. Monitors shall be allowed access to observe all construction.

D. The Contractor shall submit required documentation (e.g., equipment list and maintenance logs, noise monitoring logs, seed labels) demonstrating compliance with applicable regulations.

1.14 ★NATIVE AREAS

A. The Contractor is cautioned that wildlife may traverse the work limits. The Contractor shall conduct his/her operations to facilitate the well-being of all wildlife affected by the project.

B. The Contractor shall not feed or harass wildlife.

C. The Contractor shall keep the work area free of trash and food waste. All food waste and trash shall be removed from the work area daily.

1.15 NOISE CONTROL

A. The Contractor shall comply with all requirements of governmental agencies having jurisdiction.

B. All site preparation, grading, excavation, and construction activities shall be limited to the hours specified in Section 01010, Summary of Work, and shall be in accordance with local jurisdiction's noise ordinances.

1. ★Deliveries in residential areas shall only be conducted between [insert time period (i.e., 7 a.m. and 5 p.m. Monday through Saturday, and between 9 a.m. and 3 p.m. on Sunday)][hours specified in Section 01010].

2. ★Queuing of trucks and/or delivery of construction materials to any part of the construction site will not be allowed in residential areas outside of designated hours.

C. ★The Contractor shall comply with all requirements of the authorized Noise Control Plan, as specified in this section.

D. The Contractor shall perform all work without undue noise and shall make every effort to abate or prevent noise nuisances.

E. Construction vehicle equipment shall be kept in proper working order for the duration of the construction activities.

F. The Contractor shall equip all construction equipment, fixed and mobile, including internal combustion engines, with properly operating and maintained noise mufflers and intake silencers, consistent with the manufacturers' standards.

G. Stationary noise-generating equipment, such as generators and compressors, shall be housed or covered and located as far possible as practicable from the nearest residential/institutional property lines to attenuate noise.

H. If electrical services are available within 150 feet, electrical power shall be used to run air compressors and similar power tools at all construction activity locations, in lieu of gas or diesel-powered compressors.

1.16 SURFACE AND STORM WATER CONTROL

A. Surface and storm water control shall be in accordance with Section [01070, Storm Water Pollution Prevention Plan (SWPPP) / 01072, Water Pollution Control Plan (WPCP)].

1.17 ★TRAFFIC

A. The Contractor shall set up temporary traffic control as specified in the Contractor's authorized traffic control plan, and as specified in Section 01550, Access, Parking, and Traffic. See Submittals article.

B. ★The Contractor shall cover all open trenches when not in use at the end of each workday, where feasible and necessary.

1. In residential areas, plating shall be recessed to reduce noise impacts to residents.

1.18 ★WELL-BEING OF DOMESTIC ANIMALS

A. The Contractor is cautioned that domestic animals (cattle, horses, and others) may traverse the work limits or are kept on surrounding properties. The Contractor shall conduct his/her operations to avoid unnecessary disturbances and facilitate the well-being of all animals affected by the project. The Contractor shall consult with the Engineer and affected animal owners and shall cooperate in using construction methods and establishing operating procedures to avoid unnecessary disturbances to animals.

**PART 2 PRODUCTS** (NOT USED)

**PART 3 EXECUTION** (NOT USED)

ATTACHMENT A

CERTIFICATION OF CLEAN EQUIPMENT

Project Name:_____

I certify that the following equipment is clean of soil, seeds, vegetative matter, other debris, or adult, juvenile, or eggs of aquatic invasive animals, and has been decontaminated. Cleaning and decontamination were performed outside of the bed, bank, or channel of a stream and the bed or shore of a lake. Rinse water was properly contained and disposed of according to applicable federal, state, and local laws and ordinances enacted and in force at time.

| Equipment Description | License Plate/Identification # | | Cleaning Location | Date Cleaned |
|---|---|---|---|---|
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |
| | | IN | | |
| | | OUT | | |

_____ _____

Signature of Permittee or Designee Date

Certification is needed any time equipment is moved into the project work area and prior to leaving the project work area for this project.

END OF SECTION

# SECTION 01070
# STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

***Note to Specifier (NTS): This Master Specification is not a "standard" specification but a baseline template to tailor for specific project needs. Ensure that editing is consistent with other contract documents.***

1. ***Revise text or numbers in brackets [ ].***
2. ***If there is text that does not apply to the project, including optional text identified with a ★, delete the text and type "(Not Used)" next to the article heading. Do not delete article section headings.***
3. ***Verify cross-references when adding or deleting any text.***

***Consult the Metropolitan discipline technical lead with any questions.***

***NTS: If the project requires a SWPPP, include Section 01070. If a SWPPP is not required, then use Section 01072, Water Pollution Control Plan (WPCP), instead of Section 01070.***

***NTS: When using this section, include the following sections in the project specifications as applicable:***
***★00120, Supplementary Instructions to Bidders***
***01300, Submittals***
***★02952, Erosion Control – Post Construction BMPs***

## PART 1 GENERAL

1.01 REFERENCES

***NTS: Delete references from Part 1 if they are not cited in the spec section. If new references are cited in the text, add the new references in Part 1.***

A. General

1. The publications listed below form a part of this specification to the extent referenced. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

2. Where a date is given for reference standards, the edition of that date shall be used. Where no date is given for reference standards, the latest edition available on the date of Notice Inviting Bids shall be used.

B. California State Water Resources Control Board (SWRCB)

1. Storm Water Program

C. California Stormwater Quality Association (CASQA)

2. Construction Best Management Practices (BMP) Online Handbook

1.02 SUBMITTALS

***NTS: Coordinate with Document 00120, Supplementary Instructions to Bidders, regarding the timing of the SWPPP submittal. If the project requires an extensive SWPPP (typically for a large project), Document 00120 provides more time for the Contractor to prepare and submit, and for Metropolitan to review the SWPPP.***

A. Submittals shall be in accordance with Section 01300, Submittals, and this section.

B. Action Submittals

1. The Contractor shall submit an SWPPP to the Engineer for authorization. ★[The timing for the SWPPP submittal shall be as specified in Document 00120, Supplementary Instructions to Bidders]. The submitted SWPPP shall be fully compliant with the requirements of the SWRCB, Storm Water Program. The SWPPP shall be resubmitted if

determined unacceptable by the Engineer. Two paper copies and one electronic PDF format copy of the SWPPP shall be submitted. The SWPPP shall contain the following:

a. Names and qualifications of the Contractor's SWPPP Manager, Qualified SWPPP Developer (QSD), and Qualified SWPPP Practitioner (QSP).

b. Statement indicating the Contractor's intent to comply with the terms of the Construction General Permit (CGP) for storm water discharges associated with construction activity until the Contractor-prepared SWPPP is authorized by the Engineer.

2. The Contractor shall submit all necessary revisions and amendments to the SWPPP to the Engineer for authorization. Two paper copies and one electronic PDF format copy of SWPPP amendments shall be submitted.

C. Information Submittals

1. All annual compliance certifications, monitoring program reports, inspection logs, and data shall be submitted as electronic PDF format copies to the Engineer as required by terms and conditions of the CGP and SWPPP. The Contractor shall also provide the Engineer access to a maintained paper copy of inspection logs and reports.

1.03 RELATED ACTIVITIES BY METROPOLITAN

A. Metropolitan has provided site maps of the project to assist the Contractor with its preparation of the SWPPP.

B. Upon review and authorization of the Contractor-prepared SWPPP, Metropolitan will file the SWPPP together with the Notice of Intent (NOI) and obtain a Waste Discharge Identification number (WDID) from the SWRCB. It typically takes up to 10 working days for the SWRCB to issue a WDID after filing by Metropolitan.

C. Metropolitan will also file any revisions to the SWPPP that are submitted by the Contractor, and authorized by the Engineer during the course of the contract.

1.04 PERMIT REGISTRATION DOCUMENTS (PRDS)

A. The authorized SWPPP information will be posted electronically by Metropolitan on the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website. Information submitted by Metropolitan may be viewed on SWRCB website.

1.05 STORM WATER POLLUTION PREVENTION PLAN PREPARATION AND IMPLEMENTATION

***NTS: Confirm the risk level classification of the site. If the site has a risk level classification greater than 1, then include Paragraph 1.05A. Modify as necessary if the project has multiple sites.***

A. ★Risk Level Classification

1. The site shall be considered to have a Risk Level [2 or 3] classification.

2. Contractor's QSD shall use this risk classification when developing the SWPPP.

B. The Contractor shall not mobilize or perform any work on the project site until the Engineer has authorized the Contractor's SWPPP and obtained a WDID from the SWRCB.

C. During the course of the contract, the Contractor shall revise and update the SWPPP as required by SWRCB and resubmit to the Engineer for authorization.

D. The Contractor shall prepare and implement a site specific SWPPP in accordance with the requirements of the SWRCB (http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml), the CGP, and the Construction BMP Online Handbook developed by CASQA (https://www.casqa.org/programs-initiatives/bmp-handbooks/construction). The SWPPP and all Contractor activities shall be coordinated with other construction activities and SWPPPs at the site.

1. The SWPPP for this project shall conform to the requirements which include:

a. Eliminate/reduce non-storm water discharges to storm systems and other U.S. waters.

b. Develop and implement a site specific SWPPP that specifies BMPs to prevent all construction pollutants from contacting storm water, limit erosion and sediment transport, and keep all products of erosion and pollutants from moving off site.

c. Perform inspections and maintenance of all BMPs (storm water control structures and pollution prevention measures) and comply with the risk level requirements set-forth by the CGP.

d. Comply with post-construction BMPs for post-construction erosion and sediment control prepared by Metropolitan.

2. The SWPPP shall adequately address these requirements and shall contain as required:

a. Site and source descriptions (including the elements and characteristics specific to the site)

b. Descriptions of BMPs for erosion and sediment control

c. BMPs for construction waste handling and disposal

d. Implementation of authorized local plans

e. A sampling plan and/or sampling contingency plan, as required and based on project risk level

f. Non-storm water management

3. Erosion and sediment control shall include the following practices:

a. Prevent runoff from flowing over unprotected slopes.

b. Keep disturbed areas to the minimum necessary for construction.

c. Control sediment transport within the site and prevent sediment transport from the site, using appropriate BMPs, including but not limited to check dams, fiber rolls, sand bags, and siltation fences. Reduce sediment transport off site though construction of appropriately designed desilting and retention ponds.

d. Remove and dispose of all construction-generated siltation collected within or behind BMPs, including retention ponds.

e. Confine soil disturbance activities to the dry season, whenever possible. If construction needs to be scheduled for the wet season, ensure that erosion and sediment transport control measures are implemented prior to disturbance of soil and/or vegetation.

f. Stabilize disturbed areas as quickly as possible but in no case shall the time of stabilization exceed the time limits specified by the Regional Water Quality Control Board and the requirements of the CGP.

g. Maintain existing temporary controls until they are replaced with permanent controls.

h. Maintain and improve existing controls as necessary to comply with the CGP for construction activity.

E. Storm water management and erosion/sediment controls shall be installed in accordance with the authorized SWPPP and the requirements of the CGP. Controls and procedures shall conform to the latest edition of CASQA's Construction BMP Online Handbook (Web-based portal).

F. The Contractor shall amend the SWPPP prior to and during the course of the work as required by field conditions, construction procedures, or the Engineer. Changes shall be properly documented in the SWPPP. Copies of all amendments shall be submitted to the Engineer for authorization.

G. Maintenance and Inspections

1. The Contractor shall make visual inspections of all erosion control and sediment transport devices as necessary to ensure proper operation not less than once per week, and promptly before and after every rainstorm and at least every 24 hours during an extended rainfall event. If such inspection reveals that additional measures are needed to prevent erosion and sediment transport, the Contractor shall promptly maintain, modify, or install additional devices as needed. The Contractor shall use the forms in the SWPPP for all inspections, and all completed forms shall be included in the SWPPP and submitted to the Engineer.

2. The Contractor shall perform routine maintenance, which shall include maintenance and repair of BMPs, debris removal, silt/sediment removal, clearing of vegetation around flow control devices to prevent clogging, and maintenance of healthy vegetative cover.

H. Removal and Formal Clean-up

1. Once the site has been successfully stabilized against erosion and sediment transport, and post construction BMPs have been established, the Contractor shall remove temporary sediment control devices and all accumulated silt and debris. The Contractor shall dispose of silt and waste materials in a proper manner. The Contractor shall restore all areas disturbed during this process and stabilize against erosion with surfacing materials.

I. Post-Construction BMPs Installation

1. Post-Construction BMPs, as described in the authorized SWPPP★[ and as specified in Section 02952, Erosion Control – Post Construction BMPs], shall be installed before the end of the project.

J. Failure to Adopt and/or Implement an Acceptable SWPPP

1. If the Contractor fails to adopt and implement an acceptable SWPPP, Metropolitan reserves the right to stop the Contractor's work without recompense, and withhold payments owed to the Contractor until such time as an acceptable SWPPP is adopted and implemented, and/or design and implement an acceptable SWPPP, using Metropolitan or other Contractor forces with costs for same deducted from monies owed the Contractor. In addition, Metropolitan reserves the right to suspend work for failure of the Contractor to adopt and implement an acceptable SWPPP in accordance with Article 13 of the General Conditions.

2. Fines levied by authorities having jurisdiction for failure of the Contractor to adopt and implement an acceptable SWPPP shall be deducted from monies owed the Contractor.

## PART 2 PRODUCTS

2.01 EROSION CONTROL MATS AND FIBER ROLLS

A. Erosion control mats, fiber rolls and other BMP components containing plastic netting shall not be allowed. The Contractor shall use products containing biodegradable netting.

## PART 3 EXECUTION (NOT USED)

END OF SECTION

# SECTION 01565
# NOISE CONTROL

***Note to Specifier (NTS): This Master Specification is not a "standard" specification but a baseline template to tailor for specific project needs. Ensure that editing is consistent with other contract documents.***

1. ***Revise text or numbers in brackets [ ].***
2. ***If there is text that does not apply to the project, including optional text identified with a ★, delete the text and type "(Not Used)" next to the article heading. Do not delete article section headings.***
3. ***Verify cross-references when adding or deleting any text.***

***Consult the Metropolitan discipline technical lead with any questions.***

***NTS: When using this section, include the following sections in the project specifications as applicable:***
***01010, Summary of Work***

## PART 1 GENERAL

1.01 GENERAL

A. Metropolitan holds the Contractor and all subcontractors liable for meeting the conditions stated herein and in all permits referenced in the specifications and all applicable local, state, and federal regulations, acts, laws, and ordinances.

B. The Contractor shall obtain noise variances from [name of city or county] for nighttime and/or weekend work as required.

C. Implementation of noise control measures required in this section does not relieve the Contractor from complying with the local noise ordinances shown in the following table.

**Table 1. Noise Limits**

| Location / Jurisdiction | Noise Limits | Work Hour Restrictions |
|---|---|---|
| | | |
| | | |
| | | |

1.02 REFERENCES

***NTS: Delete references from Part 1 if they are not cited in the spec section. If new references are cited in the text, add the new references in Part 1.***

A. General

1. The publications listed below form a part of this specification to the extent referenced. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

2. Where a date is given for reference standards, the edition of that date shall be used. Where no date is given for reference standards, the latest edition available on the date of the Notice Inviting Bids shall be used.

B. American National Standards Institute (ANSI)

1. ANSI S1.1, Acoustical Terminology

2. ANSI S1.4, Specifications for Sound Meters

C. American Plywood Association (APA)

D. California Building Standards Commission

1. California Building Code (CBC)

E. International Electrotechnical Commission (IEC)

1. IEC 60942, Electroacoustics - Sound Calibrators

1.03 DEFINITIONS

A. Decibel (dB) - A unit of level which denotes the ratio between 2 quantities which are proportional to power; the number of decibels corresponding to the ratio of 2 amounts of power is 10 times the logarithm to the base (10) of this ratio.

B. Average Hourly Noise (dBA $L_{EQ}$) – The time period average equivalent A-weighted noise level during the stated measurement period.

C. A-Weighted Sound Level (dBA) – The sound level in decibels as measured on a sound level meter using the A-weighted network.

D. Equivalent Noise Level, $L_{EQ}$ – The average A-weighted noise level during the stated measurement period.

E. NRC – Noise Reduction Coefficient

F. Property Line – For the purposes of this section the property line is the point where a residential or business property begins and extends vertically to the height of the tallest structure on the property, and horizontally to the limits of the property.

G. Sensitive Receptors – Human or animal that can be negatively impacted by high levels and/or durations of noise.

H. Sound Level Meter – an instrument including a microphone, an amplifier, an output meter, and "A" frequency weighting network for the measurement of sound levels which satisfies the pertinent requirements for Type S2A meters in American Standard Specifications for sound level meters in the most recent version of ANSI S1.4.

I. STC – Sound Transmission Class

J. Work Site – An area designated by the Contractor that encompasses the limits of where workers and equipment will be operating.

1.04 SOUND LEVEL MEASUREMENTS

A. Noise level measuring instruments shall comply with the latest version of ANSI S1.4 specifications for sound meters, and be capable of meeting accuracy standards as defined by ANSI Type 1 or Type 2 for sound metering instruments.

B. Noise level measuring instruments shall be maintained per the manufacturer’s calibration recommendations,

C. Sound level measurement shall be measured with a sound level meter using A-weighting and a "slow" response time as defined in the latest version of the most recent version of ANSI S1.1.

D. All noise measurement meters must be equipped with a manufacturer’s recommended wind noise shield at all times during a measurement.

E. All measurements unless stated otherwise shall be provided in the format of the time period average equivalent noise level ($L_{EQ}$) noting the time period if less than 1-hour.

F. A calibrator as defined by the latest version of IEC 60942 shall be used for checking the calibration of hand-held noise measuring instruments in the field.

G. Noise measuring instruments shall not be exposed to extremes of humidity, and any condensation shall be carefully avoided.

1.05 SUBMITTALS

A. Submittals shall be in accordance with Section 01300, Submittals, and this section.

B. Action Submittals

1. The Contractor shall submit a Noise Control Plan stamped as applicable by a Professional Engineer, including drawings and calculations for noise control structures, 30 working-days prior to mobilization at access sites and

ventilation locations. The Noise Control Plan shall be authorized by the Engineer prior to start of site construction work and shall be implemented prior to site construction work unless otherwise stated in the plan. The Noise Control Plan shall include but not necessarily be limited to the following, to the extent feasible to protect the interests of the public, and to allow for project completion in light of critical work schedules, necessary work methods, and the physical constraints of Metropolitan's right-of-way and available work areas:

a. Identification of sensitive receptors, receptor locations and elevations, and the location and approximate elevation of noise-generating activities (i.e., excavating, staging, parking, meeting areas) and equipment.

   (1) Noise levels shall be measured at the nearest property lines.

   (2) The Engineer may relocate or add additional locations to monitor noise levels.

b. Pre-construction noise measurements detailing location, time, frequency, results of measurements, and source of noise.

c. Detailed noise attenuation measures, including description of proposed construction activities, description and location of noise control measures, description of how, when, frequency, and where noise measurements shall be taken, and a sample noise monitoring form.

d. Drawings for the types of noise control barriers to be erected for all noise-generating and stationary construction equipment showing the methods of support and anchoring, along with calculations.

e. Proposed noise barriers with required STC ratings and noise reduction methods, modeling results, monitoring strategy, and procedures for mitigation when the noise limits specified in this section are exceeded.

   (1) Noise levels shall be calculated/modeled at a height of 5 feet above grade at the property boundary wall at single story residences or businesses.

      (a) If the property has a wall which meets the requirement for consideration as a noise control element, the noise level should be calculated at least 10 feet inside the wall, as authorized by the Engineer.

   (2) Noise levels shall be calculated/modeled at a height equivalent to 5 feet above each floor level located above the first floor at multi-storied residences or businesses.

f. Qualifications of the person utilizing the instrument to measure the noise levels demonstrating prior experience or training by an experienced professional measuring noise levels with type of instrument being used.

g. A Nighttime Construction Management Plan, if any work is conducted during nighttime hours.

## PART 2 PRODUCTS

2.01 GENERAL

A. Noise control materials may be new or used.

1. Used materials shall be sound and free of damage and defects and shall be of a quality and condition to perform their designed function while providing a suitable appearance.

2. Used material must last for the duration of construction.

B. Unless otherwise specified, noise control barrier or material shall have a minimum STC rating of 25.

1. STC 25 requirement may be fulfilled with:

   a. Flexible noise control curtains/blankets with a laboratory test specification of STC 25.

   b. A double layer system consisting of two curtains/blankets with a minimum test specification of STC 18 with a 6-inch gap between them and ¾ inch thick plywood backing each of the curtains/blankets.

   c. An alternative material with proof of STC 25 or greater noise control value.

2. STC 32 requirement may be fulfilled with:

   a. Flexible noise control curtains/blankets with a laboratory test specification of STC 32

   b. A double layer system consisting of two curtains/blankets with a minimum test specification of STC 25 with a 6-inch gap between them and ¾ inch thick plywood backing each of the curtains/blankets.

   c. Two layers of 3/4-inch thick plywood barrier material separated by stud wall constructed with 2 by 4 inch (nominal) studs, 16 inches on center with gaps between studs filled with insulation rated no less than R30.

d. An alternative material with proof of STC 32 or greater noise control value.

C. Noise control barriers may be constructed of plywood or alternate materials meeting STC ratings.

1. All plywood used shall meet the minimum APA specification standard rating of C-D exterior grade.

D. Noise control barriers shall be designed to withstand, and anchored properly to handle, the loading generated by high sustained winds and gusts to which the project area can be subjected. Wind speeds, both sustained and gusts, used to determine loading on noise control barriers shall be in accordance with the CBC and current local building codes and ordinances.

E. Noise control barriers must be maintained in compliance with this specification for the duration of the Contract.

1. Damage, gaps, holes, or weaknesses in the noise control barrier, or any openings between the barriers or barrier and the ground shall be promptly repaired by the Contractor.

F. The Contractor is responsible for maintaining the safety and appearance of the noise control barrier.

G. Noise control barriers must have flush mating surfaces of wall sides when walls are joined together or at corners.

1. Gaps or cracks between wall sections and between the bottom edge of walls and grade shall be closed with material that shall completely close the gaps and be dense enough to attenuate noise.

H. Gates and/or doors in the noise control barrier that are either hinged or rolling shall be constructed of the same or equally effective material as the noise control barrier.

1. Gates and doors in the noise control barrier shall be constructed to ensure that the edges overlap the noise control barrier to eliminate gaps.

I. Noise control barriers that do not provide an NRC rating of 0.85 for the barrier side facing the equipment shall have a construction liner provided on the equipment side of glass fiber or other appropriate type of noise-absorbing material at least two inches thick with a manufacturer's NRC rating of 0.85 or better. Construction liner coverage must be at least 85 percent of the total noise control barrier area.

J. Noise control curtain/blanket shall be constructed of durable, flexible composite material featuring a noise barrier layer bonded to a sound-absorptive material on one side.

1. Noise barrier layer shall be constructed with rugged, impervious material with a surface weight of at least one pound per square foot.

2. Sound-absorptive material shall include a protective facing and securely attached to one side of the noise barrier layer over its entire surface.

3. Materials shall be fire-retardant with a class A fire rating for the composite material system.

K. Noise control curtain materials shall be corrosion-resistant to mild acids and alkalis, salts, oils, and grease. The materials shall also be abuse-resistant, exhibiting superior hanging and tear strength during construction.

1. Curtain/blanket barrier material shall have a minimum breaking strength of 120 lb/in and minimum tear strength of 30 lb/in.

2. Curtain/blanket absorptive material facing shall have a minimum breaking strength of 100 lb/in and minimum tear strength 7 lb/in.

3. Sound-absorptive material shall be mildew-resistant, vermin proof, and non-hygroscopic.

2.02 NOISE CONTROL – VENTILATION EQUIPMENT

A. Ventilation equipment shall be enclosed, or as directed by the Engineer.

B. Contractor shall use electric equipment instead of diesel equipment when possible.

C. Contractor shall implement intensive equipment maintenance program to reduce undue noise.

## PART 3 EXECUTION

3.01 GENERAL

A. The Contractor is responsible for obtaining noise variances from [name of city or county] for work outside of standard noise ordinances as detailed in Section 01010, Summary of Work.

B. The Contractor is responsible for design, detailing, and adequacy of the footings, framework, supports, posts, attachment methods and other appurtenances required for the proper erection of noise barriers, with the applicable Professional Engineer stamp.

C. The Contractor is responsible for the maintenance, safety, and appearance of the noise control barrier for the duration of the construction.

D. The Contractor shall locate all noise-generating and stationary construction equipment as far as possible from near-site residential and sensitive receptors and situated so that emitted noise is directed away from the sensitive receptors.

E. Noise-generating equipment shall be oriented such that the source of noise is facing away from the nearest sensitive receptors to the extent possible.

F. The use of a work site noise control barrier, a barrier large enough to encompass the entire work site or a portion of the work site, shall not negate the use of noise control barriers for specific equipment, as noted herein.

G. Reduce equipment idling time to 5 minutes on cranes and construction equipment.

H. Areas where workers gather (break areas, shift-change areas, meeting areas, and sanitary stations) shall be located a minimum of 100 feet away from any residence, or to the greatest extent feasible.

I. Parking areas shall be located a minimum of 150 feet from sensitive receptors. Parking areas within 500 feet of sensitive receptors shall be posted, to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.

J. Fuel deliveries shall be a minimum of 500 feet from residences or to the greatest extent feasible.

K. The Contractor shall perform all work without undue noise and shall make every effort to alleviate or prevent noise nuisances.

L. Site preparation, excavation, site closure activities and delivery trucks shall be allowed during daytime hours only and in compliance with local noise and traffic ordinances.

M. The Contractor's construction vehicles and equipment shall have mufflers. The Contractor shall equip all construction equipment, fixed and mobile, with properly operating and maintained noise mufflers and intake silencers, consistent with the manufacturer standards. Equipment shall be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer requirements.

N. The Contractor shall utilize the following types of equipment whenever possible: electrical instead of diesel powered equipment, hydraulic tools instead of pneumatic tools, and use of electric welders powered by remote generators.

O. The Contractor shall install a noise control barrier surrounding stationary noise generating equipment in addition to any noise control barriers installed to encompass or shield a portion of the general work site that may be installed by the Contractor as required under these specifications. Noise control barrier and enclosure construction criteria shall follow general guidelines listed in the following section.

1. Noise control barriers constructed by the Contractor shall be designed by a qualified professional with experience in designing noise control barriers.

2. Noise control barriers for equipment shall conform to the requirements for bag filters and large compressors, air humidifiers, and generators, as specified herein.

3. Noise control barriers and enclosures shall be implemented using the most appropriate material, configuration, and location, to achieve the maximum feasible noise reduction.

4. All inner surfaces, including any removable roof sections of a noise control barrier must have a noise absorptive inner layer.

5. Noise control barriers with gates or doors shall be kept closed, except for brief periods of time to allow access to the equipment or construction site.

6. Equipment that has noise control doors shall be operated only with the doors fully closed.

P. The Contractor shall handle, store, apply, and dispose of noise barriers consistent with all applicable federal, state, and local regulations.

3.02 NOISE MONITORING

A. General

1. The Contractor shall measure the noise level for single story and multi-storied residences or businesses in accordance with this section's submittal requirements for the Noise Control Plan.

B. Pre-Construction Noise Measurements

1. Prior to the start of construction, the Contractor shall measure noise levels at the nearest sensitive receptors, as identified in the Noise Control Plan, during daytime and nighttime hours (if nighttime work is required) and shall submit the measurements in the Noise Control Plan.

    a. If noise levels are in excess of the noise limits specified in this section, procedures identified in the Noise Control Plan must be implemented.

C. Noise Monitoring Recordation

1. All monitoring results shall be recorded on a form supplied by the Contractor and authorized by the Engineer.

    a. The noise monitoring form shall note the date and the time of day of the noise monitoring, noise level, noise threshold, location of measurement taken, elevation of where measurement was taken, construction activity being performed, and the person(s) performing the monitoring.

2. Monitoring results shall be submitted to the Engineer at the conclusion of the testing.

3. Only monitoring equipment with current and valid calibration dates/sticker shall be used for monitoring.

4. Monitors shall be experienced in operating the monitoring equipment.

D. Construction Noise Monitoring

1. The Contractor shall perform noise monitoring following initial setup of equipment and noise measurements to measure noise levels during work and to measure the effectiveness of noise control measures.

2. The Contractor shall plan noise measurement times to coincide with scheduled operations of onsite equipment expected to create the loudest noise impacts during the normal measurement schedule and at the beginning of each new equipment activity. Noise levels shall be measured in 30-minute increments noting the lowest and highest noise level measured within 30-minute intervals at the start of construction and at the beginning of each new activity, or as new equipment is used as directed by the Engineer. Should any equipment be in use during nighttime hours, noise levels must be measured in accordance with the above parameters.

3. If noise levels are in excess of the noise limits specified in this section, procedures identified in the Noise Control Plan must be implemented.

    a. After initial installation of noise control barriers and operation of equipment the Contractor shall measure the noise levels at the nearest sensitive receptors.

4. The Contractor may be required to conduct additional noise monitoring following the initial measurements taken, if there are any changes made to the noise control measures, noise generating equipment is relocated, noise control barriers are not properly maintained, or nearby sensitive receptors are impacted.

5. Where measured noise levels at the property line of residences are shown to exceed the noise limits specified in this section, additional feasible noise control measures shall be implemented in an effort to achieve the specified daytime and nighttime thresholds.

    a. Noise monitoring shall be performed to record the achieved level of noise reduction.

6. Metropolitan will have a monitor present during construction activities to ensure that all conditions are implemented and will be allowed to observe all construction activities; however, the Contractor is responsible for implementation.

END OF SECTION

# ***THIS SECTION IS BEING UPDATED***

A new version is being developed in the Master Spec Preparation for CCB folder in ProjectWise (Ctrl + Click to follow the link). Consult with the Discipline Tech Lead to determine which version to use for the project.

## SECTION 02110
## CLEARING, GRUBBING, AND STRIPPING

***Note to Specifier (NTS): This Master Specification is not a "standard" specification but a baseline template to tailor for specific project needs. Ensure that editing is consistent with other contract documents.***

1. ***Revise text or numbers in brackets [ ].***
2. ***If there is text that does not apply to the project, including optional text identified with a ★, delete the text and type "(Not Used)" next to the article heading. Do not delete article section headings.***
3. ***Verify cross-references when adding or deleting any text.***

***Consult the Metropolitan discipline technical lead with any questions.***

***NTS: When using this section, include the following sections in the project specifications as applicable:***
***01070, Storm Water Pollution Control Plan (SWPPP) or 01072, Water Pollution Control Plan (WPCP)***
***★02010, Demolition***
***02200, Earthwork***

***NTS: Omit Submittals if the requirements in Part 3 of this section do not call for removing trees or shrubs, or the branches from existing trees.***

**PART 1 GENERAL**

1.01 ★SUBMITTALS

A. Tree sealant: The proposed tree sealant shall be submitted for approval [30 days] prior to the removal of branches from trees that are designated to remain in place.

B. ★Contractor shall provide submittals for removal of trees and shrubs within the limits of the trimming requirements. Submittals shall document the tree and shrub types, and the number and size of trees and shrubs.

**PART 2 PRODUCTS** (NOT USED)

**PART 3 EXECUTION**

3.01 SCHEDULING

A. Clearing, grubbing, and stripping shall be completed as a separate item of work before the beginning of excavation, stockpiling, trenching, or fill operations. The completed cleared areas must be approved by the Engineer before the Contractor begins subsequent earthwork items.

B. Areas within the limits of excavation, embankment, building areas, roadways, sidewalks, and other facilities shall be cleared, grubbed, and stripped before earthwork begins.

C. Borrow areas shall be cleared, grubbed, and stripped prior to use. These areas shall be cleared, grubbed, and stripped in stages, as necessary, to ensure that the areas are not contaminated.

D. Areas to be used for stockpiling of material shall be cleared, grubbed, and stripped prior to stockpiling.

E. Clearing, grubbing, and stripping of the length of trench to be excavated each day shall be completed, and material from these operations shall be stockpiled away from the trench area, before the start of trenching.

3.02 PRESERVATION OF EXISTING CONDITIONS

A. ★Existing trees, shrubbery, other vegetation, structures, pavements, or utilities designated to remain in place shall be protected from damage resulting from the work.

***NTS: Edit the following paragraphs as necessary to ensure that environmental and permit requirements are included.***

B. ★Special protection shall be provided at [oak trees] [plant material requiring special protection].

C. ★Tree branches shall be cut and removed only where, in the opinion of the Engineer, such cutting is necessary to effect construction operations. Tree branches other than those that must be removed to perform the work shall be trimmed to provide a balanced appearance. Scars resulting from the removal of branches shall be treated with an approved tree sealant.

***NTS: Ensure that no agreement exists contrary to the following requirements.***

D. ★Trees, shrubs, or plants within the limits of [work] [the easement on private property] that interfere with excavation or trenching may be removed as long as they are kept intact with their root system and protected as described in this section.

1. Plant locations shall be documented and submitted to the Engineer before the plants are removed.

***NTS: Confirm that topsoil exists on the project. If present, edit the following paragraph to ensure compatibility with its use as indicated.***

2. The root system of the trees, shrubs, or plants shall be balled, bound in burlap, heeled into [suitable stripped materials or soils] [the stockpiled topsoil] from the excavation, and kept watered as required.
3. Upon completion of work in the affected areas, the trees, shrubs, or plants shall be replanted in their original positions.
4. When a tree, shrub, or plant that has been disturbed or otherwise damaged by the Contractor dies within 6 months from the time that it was disturbed, damaged, or replanted; the tree, shrub, or plant shall be replaced in kind and size.

3.03 CLEARING, GRUBBING, AND STRIPPING

A. General

1. Clearing, grubbing, and stripping shall extend to five feet beyond the limits of excavations and fill slopes, but not beyond the limits of work.

***NTS: The project will have either a Storm Water Pollution Control Plan (SWPPP) per Section 01070 or a Water Pollution Control Plan (WPCP) per Section 01072 depending upon the amount of land disturbance. Select the appropriate reference in the following paragraph.***

2. Temporary surface, storm water, and erosion control in conformance with the approved [Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section 01070 / Water Pollution Control Plan (WPCP) in accordance with Section 01072] shall be implemented concurrent with the clearing, stripping, and grubbing operations.
3. Waste-disposal areas shall be cleared, grubbed, and stripped only as necessary for the disposal of waste material.
4. Areas that have been cleared, grubbed, and stripped shall be maintained free of objectionable growth until the work has been completed.

B. Clearing

1. Clearing shall consist of cutting, removing, and disposing of objectionable material from the ground surface, such as trash, trees, brush, logs, stumps, weeds, grasses, fences, structures, and natural or artificial obstructions of any kind.
2. During the clearing process, trees shall be cut so that they fall into the area to be cleared. Trees and stumps requiring removal shall not be cut to ground level but shall be pulled completely from the ground.

3. Clearing shall also include the removal and disposal from the jobsite of trash piles and rubbish created prior to and during the construction work.

***NTS: If the removal of pavements and structures is required during clearing activities for the project, then include Section 02010, Demolition, in the project specifications and include the following article.***

4. ★Prior to removal of pavement or structures, scoring or sawcutting is required as specified in Section 02010, Demolition.

C. Grubbing

1. Grubbing shall consist of digging up, removing, and disposing of objectionable material found at or below the ground surface such as trash, trees, brush, logs, stumps, roots, and natural or artificial obstructions of any kind that will interfere with the required excavations and construction.

2. Unless otherwise shown or specified, stumps, roots over one inch in diameter, buried logs, and all other objectionable materials shall be removed to a depth of 3 feet below the existing ground surface, or the structure or pipeline subgrade, whichever is deeper.

***NTS: Confirm that topsoil exists on the project. If present, edit the following section to ensure that special provisions for its use are included. Section 02200, Earthwork, should also be edited to ensure compatibility with the reference indicated herein.***

D. Stripping

1. Stripping shall consist of the removal of organic materials, sod, ★[topsoil,] grass, and grass roots from the areas designated to be stripped.

2. Except under previously existing paving or structures, or when otherwise shown on the drawings, existing soil materials shall be stripped to a depth of 8 inches below the original ground surface.

3. Stripped materials ★[and topsoil] shall be stored in accordance with Section 02200, Earthwork, and shall not be mixed with borrow materials, but shall be retained for placement in the top 12 inches of fill in the areas to be landscaped.

4. The Contractor shall ensure that stripped materials ★[and stockpiled topsoil] are identified and marked so that they are not incorporated into fill or embankment.

3.04 DISPOSAL OF CLEARING, GRUBBING, AND STRIPPING DEBRIS

A. Burning of combustible materials will not be permitted.

B. Material removed from the jobsite shall be disposed of legally.

END OF SECTION

# Appendix B

Jurisdictional Delineation Report

**Rincon Consultants, Inc.**

250 East 1st Street, Suite 1400
Los Angeles, California 90012

213 788 4842

info@rinconconsultants.com
www.rinconconsultants.com

January 12, 2022
Project No: 20-09668

Michelle Morrison, Environmental Specialist
The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
Via email: mmorrison@mwdh2o.com

**Subject:** **Jurisdictional Delineation for the Garvey Reservoir Rehabilitation Project, Monterey Park, California**

Dear Ms. Morrison:

This Jurisdictional Delineation (JD) letter report has been prepared by Rincon Consultants, Inc. (Rincon) to assist The Metropolitan Water District of Southern California (Metropolitan) with project planning for the Garvey Reservoir Rehabilitation Project (project). Specifically, this JD provides an assessment of two detention basins in the southwest portion of the project site, which are hereafter referred to as "Basin 1" and "Basin 2." If determined to be necessary by Metropolitan, this report can also be used by the United States Army Corps of Engineers (USACE) to confirm the extent of potential jurisdiction under Section 404 of the Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB) to confirm the extent of potential jurisdiction pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act, and the California Department of Fish and Wildlife (CDFW) to confirm the extent of potential jurisdiction pursuant to California Fish and Game Code (CFGC) Section 1600 et seq.

# Project Location

The project site is an approximately 130-acre portion of a 142-acre property located at 1061 South Orange Avenue in Monterey Park, California (Los Angeles County Assessor's Parcel Numbers 5260-013-910 and 5260-013-905). See Figure 1 in Attachment A for a project location map. The project site is developed with the Garvey Reservoir in the central portion of the site along with various appurtenant structures and features throughout the site. The site is accessible from State Route 60, located approximately 0.9 mile south of the project site, and Interstate 10, located approximately 1.4 miles north of the project site. Surrounding land uses include residential neighborhoods to the west, north, south, and east; Hillcrest Elementary School to the east; the Monterey Park City Yard to the north; and Garvey Ranch Park to the north. The approximate center of the project site occurs at latitude 34.049522°N and longitude -118.116403°W. The project site is within the *El Monte, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle. The Public Land Survey System depicts the project site as within Township 01S, Range 12W, Sections 26, 27, 34, and 35, San Bernardino Meridian.

# Methods

A literature review and desktop evaluation of existing aerial imagery and published datasets were conducted for the JD, followed by a field survey and delineation of potential jurisdictional waters. The study area defined for the JD, hereinafter referred to as the "Study Area," includes the area occupied by the two detention basins in the southwest portion of the project site. The Study Area analyzed in this report encompasses roughly 0.52 acre (Attachment A, Figure 2).

## Literature Review

Prior to surveying the Study Area, Rincon's Wetland Scientist Malek Al-Marayati reviewed recent aerial photography of the site (Google Earth Pro 2021). To aid in characterizing the nature and extent of jurisdictional waters potentially occurring in the Study Area, resources reviewed included the most recent *El Monte*, *California* USGS 7.5-minute topographic quadrangle map (USGS 2021a) and the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS 2021a). Additionally, the *National Hydrography Dataset* (USGS 2021b) and the United States Fish and Wildlife Service (USFWS) *National Wetlands Inventory* (USFWS 2021) were reviewed to determine if potential wetlands and/or other waters had been previously mapped in or near the Study Area. The *State Soils Data Access (SDA) Hydric Soils List* (USDA NRCS 2021b) was also reviewed to determine if any soil map unit types mapped in or near the Study Area were classified as hydric.

## Field Delineation

On November 23, 2021, Malek Al-Marayati surveyed the Study Area on foot for potential wetlands and non-wetland aquatic resources. Current USACE and State Water Resources Control Board (SWRCB) delineation procedures and guidance were used to identify and delineate any wetlands and/or waters of the United States/State potentially subject to USACE and RWQCB jurisdiction (USACE 1987, 2008a, 2008b, and 2021; Lichvar et al. 2016; SWRCB 2019). Likewise, current CDFW procedures and guidance were used to identify and delineate any streambeds, rivers, or associated riparian habitat potentially subject to CDFW jurisdiction. Spatial data representing wetland sampling points, the limits of wetland waters, and other observation points were mapped using a Juniper Systems Geode Global Positioning System (GPS) with sub-meter accuracy and were also plotted on aerial photographs. The data was subsequently transferred to Rincon's geographic information system (GIS) and used in combination with recent, high-resolution aerial photographs and topographic datasets to map the extent of jurisdictional features in the Study Area. Representative site photographs are presented in Attachment B. Wetland Determination Data Forms for the presence/absence of wetlands and potential jurisdiction are presented in Attachment C.

# Existing Setting

The Study Area is located in the San Gabriel Valley within the suburban area of the city of Monterey Park and is characterized by hot summers and mild winters. The basins are situated at the base of a south-facing hillslope below the Garvey Reservoir, which is an enclosed water storage facility operated by Metropolitan. The detention basins consist of earthen material and are approximately 600 feet southwest of the reservoir. The Study Area is abutted to the west and south by a residential

neighborhood. The topography of the Study Area consists of steep slopes and flat beds associated with the detention basins. Elevation ranges between 420 and 450 feet above mean sea level.

## Hydrology

The Study Area is located in the Los Angeles River Watershed (Hydrologic Unit Code [HUC12] 180701050401). The USGS *National Hydrography Dataset* identifies the detention basins as "lakes/ponds" and the Garvey Reservoir as a "reservoir." The USFWS *National Wetlands Inventory* does not recognize any wetlands or riverine features in the Study Area. The Garvey Reservoir is an enclosed water storage facility that does not contain surface water. The two detention basins in the Study Area were constructed in an upland area at the base of a slope south of the Garvey Reservoir for the purpose of flood control. Specifically, rainwater and water used for cleaning the reservoir cover is pumped from the cover into a series of pipes that drain into the basins via a rainwater collection system.

Basin 1 receives stormwater runoff from adjacent uplands via two v-ditches to the northwest and northeast of the basin. Additionally, flow from the rainwater collection system seeps into the basin from underneath the v-ditch to the northwest (Attachment A, Figure 3). Flow from Basin 1 is conveyed to an inlet drain in the bed of the basin that leads to a culvert. The culvert conveys flow southward for approximately 50 feet before spilling into Basin 2 via an outfall structure. Flow from Basin 2 is conveyed to another inlet drain and ultimately into the Los Angeles County underground stormwater system, which eventually drains into the Pacific Ocean. Flowing surface water, which was draining into Basin 1 from the rainwater collection system and ultimately exiting into the inlet drain of Basin 2, was observed at the time of the survey.

## Soils

The USDA NRCS Web Soil Survey depicts one soil map unit within the Study Area: Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced (USDA NRCS 2021a). Site-specific soil observations were generally consistent with those mapped by the USDA NRCS Web Soil Survey. Counterfeit and Urban Land series soils are poorly drained soils that occur on hillslopes. These soils are typically human-transported material consisting mostly of colluvium and/or residuum weathered from sedimentary rock. This soil map unit is not included on the *National Hydric Soils List* (USDA NRCS 2021b).

## Vegetation

Vegetation in the Study Area consists of California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) on the steep slopes in upland areas adjacent to the detention basins (Sawyer et al. 2009). Vegetation in the basins consists predominantly of non-native herbaceous species dominated by variable flatsedge (*Cyperus difformis*) and hyssop loosestrife (*Lythrum hyssopifolia*), which are both classified as obligate wetland plant species (OBL) in the National Wetland Plant List (Lichvar et al. 2016; USACE 2021). Vegetation is mowed regularly in the basins for flood control maintenance.

# Field Results and Discussion

Both detention basins in the Study Area are described below and depicted in Figure 3 in Attachment A. Representative photographs of each feature are presented in Attachment B.

## Basin 1 and Basin 2

The detention basins in the Study Area receive flow from a rainwater collection system as well as surface runoff from adjacent uplands. Flow from the basins is ultimately conveyed into the Los Angeles County underground stormwater system.

A total of three soil test pits (Sampling Points) were excavated within the detention basins (Attachment A, Figure 3). Sampling Point 01 (SP01) was located in the bed of Basin 2 near the basin's edge, and the Rincon Wetland Scientist determined SP01 is within a wetland due to the presence of all three USACE defined wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The soil profile at SP01 consisted of a Depleted Matrix and a Loamy Gleyed Matrix with saturation present starting at a depth of 5 inches from the soil surface. The following obligate wetland species (OBL) were observed at this location: variable flatsedge and loosestrife.

Sampling Point 02 (SP02) was located approximately 20 feet east of SP01 outside of the visible boundaries of the Basin 2 wetland feature on a west-facing hillslope. SP02 is not within a wetland due to the absence of all three USACE defined wetland parameters (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology). Vegetation at this location consisted solely of upland species such as olive tree (*Olea europaea*), California buckwheat (*Eriogonum fasciculatum*), and slender oat (*Avena barbata*).

Sampling Point 03 (SP03) was located in the bed of Basin 1, and the Rincon Wetland Scientist determined SP03 is a wetland due to the presence of all three USACE defined wetland parameters. The soil profile at SP03 consisted of a high percentage of redox concentrations starting at a depth of 9 inches from the surface and saturation starting at the surface. The presence of redox concentrations starting in the upper layer of the soil profile of a depressional landform at SP03 met the requirements for the Redox Depressions hydric soil indicator. A water table was present starting at a depth of 18 inches. Due to the consistency of topography and upland vegetation species composition on the slopes surrounding both Basin 1 and Basin 2, an upland sampling point was not examined for Basin 1. The limits of wetland waters were determined by the consistency of hydrophytic vegetation and topography for both basins.

### *USACE Waters of the United States*

In accordance with guidance from the United States Environmental Protection Agency (USEPA) and USACE on CWA Jurisdiction following the United States Supreme Court's decision in *Rapanos v. U.S.* (June 19, 2006), the USACE will assert jurisdiction over traditional navigable waters (TNWs), non-navigable tributaries of TNWs that are Relatively Permanent Waters (RPWs), and wetlands that are adjacent to TNWs and directly abut RPWs (USEPA and USACE 2008). TNWs include all of the "navigable waters of the U.S." defined in 33 Code of Federal Regulations Part 329 and by pertinent federal court decisions. RPWs convey water flow seasonally, typically for at least three months. In addition, non-navigable tributaries that are not relatively permanent (non-RPWs), wetlands adjacent to non-RPWs, and wetlands adjacent to but that do not directly abut a RPW will be found jurisdictional based on a fact-specific analysis that they have a significant nexus with a TNW.

The significant nexus evaluation considers the volume, duration, and frequency of water flow in the tributary and the proximity of the tributary to a TNW, as well as the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands. The CWA also defines non-jurisdictional waters in 33 Code of Federal Regulations Part 328, which include "[s]tormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or

store stormwater run-off." Therefore, Basin 1 and Basin 2 would require a significant nexus determination to be considered under the jurisdiction of the USACE.

**Hydrology Factors**

The detention basins receive flow from a rainwater collection system as well as surface runoff from adjacent uplands. Flow from the basins is conveyed via an underground stormwater system until ultimately draining into the Rio Hondo, an RPW, approximately 4 miles south of the basins. The Rio Hondo merges with the Los Angeles River, another RPW, which eventually conveys flow to the Pacific Ocean. However, the detention basins are not adjacent to and do not abut any RPWs, TNWs, or non-RPW tributaries.

**Ecological Factors**

The detention basins are situated in a highly disturbed area surrounded by residential development and industrial land uses associated with the existing Garvey Reservoir. Vegetation within the basins is dominated solely by invasive herbaceous plant species and is regularly mowed for flood control maintenance. The basins receive flow from a collection system that conveys flows from reservoir cover cleaning and precipitation events directly into an underground stormwater system. It is therefore unlikely that the basins contribute significantly to the transport of nutrients or sediment to downstream navigable waters.

**Significant Nexus Evaluation**

The detention basins, which convey flow directly into an underground stormwater system, are physically separated from any RPW, TNW, or non-RPW tributary and are hydrologically connected to receiving waters only though an underground storm drain system that comingles flows from the basins with runoff from the surrounding suburban areas. The basins are unlikely to significantly affect the chemical, physical, or biological integrity of any downstream navigable waters. Given these factors, it is reasonable to conclude that the detention basins in the Study Area do not have a significant nexus with a TNW, and therefore are not within the jurisdiction of USACE pursuant to Section 404 of the CWA.

## *RWQCB Waters of the State*

Pursuant to Section II of the *Statewide Wetland Definition and Procedures for Discharges of Dredged or Fill Material* (SWRCB 2019), artificial wetlands[1] are only considered Waters of the State when they are not subject to ongoing operations and maintenance. Both detention basins were excavated in an upland area during the construction of Garvey Reservoir in 1954. The basins continue to be used as part of a rainwater collection system for flood control purposes and are regularly maintained by Metropolitan; therefore, the detention basins are not Waters of the State and are not within the jurisdiction of RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.

**CDFW Jurisdiction**

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake that supports fish or

[1] Artificial wetlands are wetlands that result from human activity.

wildlife. The detention basins in the Study Area are not wholly or part of any river, stream, or lake and therefore are not within the jurisdiction of CDFW pursuant to CFGC Section 1600 et seq.

## V-Ditches (Non-jurisdictional)

Several concrete-lined v-ditches that convey runoff from adjacent uplands into the detention basins are present in the Study Area. These features do not exhibit bed and bank, ordinary high water mark, or any riverine or wetland hydrology indicators. Flows in these features receive minimal runoff from adjacent uplands during storm events and contribute flow to Basin 1 and Basin 2. Vegetation is absent throughout the non-jurisdictional v-ditches. Therefore, these concrete-lined v-ditches are not wetland features and are not under USACE, RWQCB, or CDFW jurisdiction.

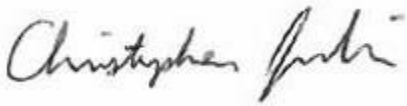
# Conclusions and Recommendations

The detention basins examined in this report are not subject to USACE jurisdiction pursuant to Section 404 of the CWA, RWQCB jurisdiction pursuant to Section 401 of the CWA or the Porter-Cologne Water Quality Control Act, or CDFW jurisdiction pursuant to CFGC Section 1600 et seq.

The findings and conclusions presented in this report, including the location and extent of areas subject to regulatory jurisdiction, represent the professional opinion of the consultant biologists. These findings and conclusions should be considered preliminary and at final discretion of the applicable resource agency.

Sincerely,
**Rincon Consultants, Inc.**

Malek Al-Marayati, MS
Wetland Scientist



Christopher Julian
Principal/Regulatory Specialist

**Attachments**

Attachment A Figures
Attachment B Representative Site Photographs
Attachment C Wetland Determination Data Forms

# References

California Fish and Game Code (CFGC). 2017. Division 3: Fish and Game Generally. Chapter 9: California Wildlife Protection Act of 1990. Article 2: California Wildlife Protection. Section 2785.

Google Earth Pro. November 2021.

Lichvar, R.W. et al. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1–17. Published April 28, 2016.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA.

State Water Resources Control Board (SWRCB). 2019. State Wetland Definition and Procedures for Discharges of Dredges or Fill Material to Waters of the State. Sacramento, CA.

United States Army Corps of Engineers (USACE). Environmental Laboratory. 1987. Technical Report Y-97-1. In: United States Army Corps of Engineers Wetlands Delineation Manual. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

---------. 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS.

---------. 2008b. A *Field Guide to the Identification of the Ordinary High Water mark (OHWM) in the Arid West Region of the Western United States.* Technical Report ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, NH.

---------. 2021. National Wetland Plant List. Website. https://cwbi-app.sec.usace.army.mil/nwpl_static/v34/home/home.html (accessed December 2021).

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). 2021a. Web Soil Survey. Soil Survey Area: Los Angeles County, California. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed November 2021).

---------. 2021b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture.: https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/ (accessed November 2021).

United States Environmental Protection Agency (USEPA) and United States Army Corps of Engineers (USACE). 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. Published 2 December 2008.

United States Fish and Wildlife Service. 2021. National Wetland Inventory Data Mapper https://www.fws.gov/wetlands/Data/Mapper.html (accessed November 2021).

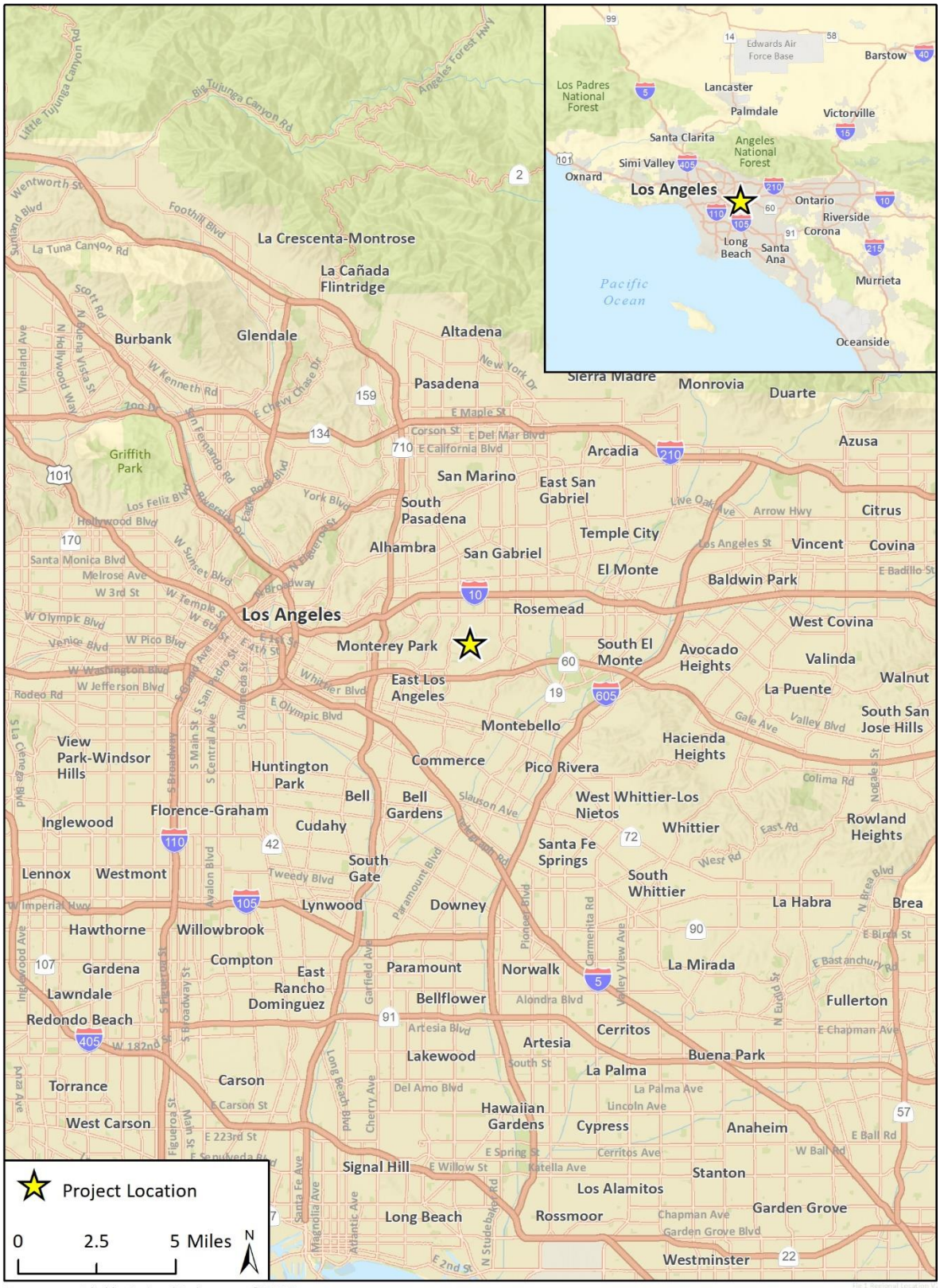
United States Geological Survey (USGS). 2021a. El Monte, California USGS 7.5-minute topographic quadrangle. Accessed via The National Map. https://viewer.nationalmap.gov/advanced-viewer/ (accessed November 2021).

---------. 2021b. National Hydrography Dataset. Accessed via The National Map Viewer. https://viewer.nationalmap.gov/advanced-viewer/ (accessed November 2021).

# Attachment A

Figures

## Figure 1 Regional Location

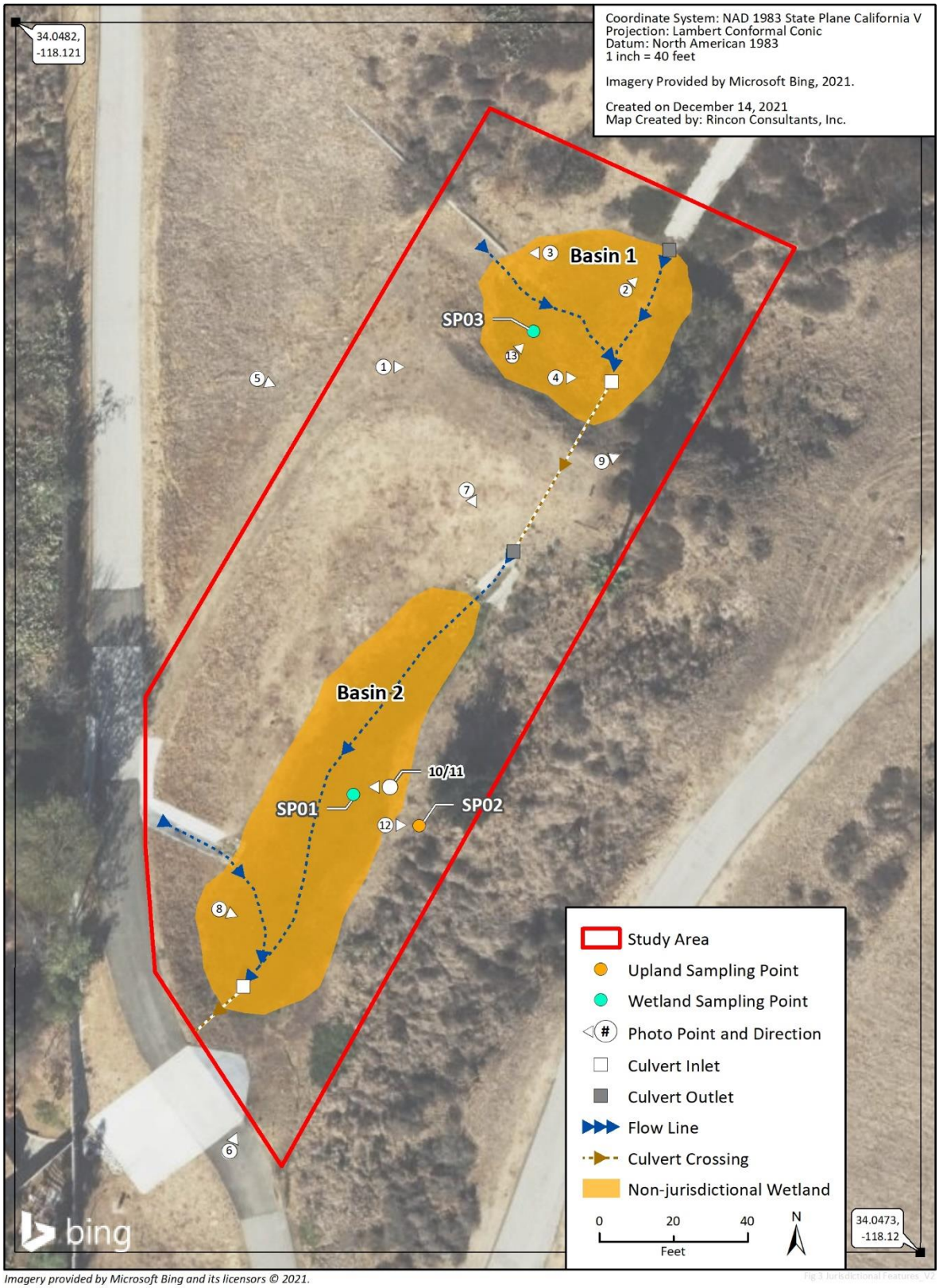



*Imagery provided by Esri and its licensors © 2022.*

**Figure 2 Study Area**


*Imagery provided by Esri and its licensors © 2022.*

**Figure 3 Jurisdictional Delineation**




*Imagery provided by Microsoft Bing and its licensors © 2021.*

# Attachment B

Representative Site Photographs

**Photograph 1.** Overview of mowed vegetation in Basin 1, facing east.

**Photograph 2.** Surface water seeping from beneath v-ditch into Basin 1, facing northeast.

**Photograph 3.** Corrugated pipe conveying runoff into Basin 1, facing west.

**Photograph 4.** Inlet drain receiving flow from Basin 1, facing east.

**Photograph 5.** Berm above culvert separating Basin 1 from Basin 2, facing southeast.

**Photograph 6.** Overview of mowed vegetation in Basin 2, facing north-northeast.

**Photograph 7.** Culvert outlet conveying flow from Basin 1 to Basin 2, facing southeast.

**Photograph 8.** Inlet drain receiving flow from Basin 2, facing east-southeast.

**Photograph 9.** Upland vegetation dominated by California buckwheat (*Eriogonum fasciculatum*) on steep hillslopes surrounding Basin 1 and Basin 2, facing northeast.

**Photograph 10.** Sampling Point 1 (SP01) in area adjacent to surface water in Basin 2, facing west.

**Photograph 11.** Gleyed soil matrix and redox concentrations in SP01.

**Photograph 12.** Sampling Point 2 (SP02) on hillslope abutting Basin 2, facing east.

**Photograph 13.** Sampling Point 3 (SP03) in bed of Basin 1, facing northeast.

# Attachment C

Wetland Determination Data Forms

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Garvey Reservoir Rehabilitation Project City/County: Monterey Park/Los Angeles Sampling Date: 11/23/2021

Applicant/Owner: Metropolitan Water District of Southern California State: CA Sampling Point: SP01

Investigator(s): Malek Al-Marayati Section, Township, Range: 34, 01S, 12W

Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): C Lat: 34.047597 Long: -118.120784 Datum: WGS84

Soil Map Unit Name: Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ✔ | No _____ | **Is the Sampled Area within a Wetland?** Yes ✔ No _____ |
| Hydric Soil Present? | Yes ✔ | No _____ | |
| Wetland Hydrology Present? | Yes ✔ | No _____ | |

Remarks:

Vegetation in detention basin regularly mowed for flood control maintenance.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 30 ft.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. NA | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 ft.) | | | |
| 1. NA | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 0 | = Total Cover | |
| **Herb Stratum** (Plot size: 5 ft.) | | | |
| 1. Cyperus difformis | 40 | Y | OBL |
| 2. Lythrum hyssopifolia | 15 | Y | OBL |
| 3. Stenotaphrum secundatum | 6 | N | FAC |
| 4. Helminthotheca echioides | 5 | N | FAC |
| 5. Poa pratensis | 4 | N | FAC |
| 6. Gazania linearis | 2 | N | UPL |
| 7. | | | |
| 8. | | | |
| | 72 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 15 ft.) | | | |
| 1. NA | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum 28 % Cover of Biotic Crust 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species _____ | x 1 = _____ |
| FACW species _____ | x 2 = _____ |
| FAC species _____ | x 3 = _____ |
| FACU species _____ | x 4 = _____ |
| UPL species _____ | x 5 = _____ |
| Column Totals: _____ (A) | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✔ No _____

Remarks:

## SOIL

Sampling Point: SP01

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-5 | 2.5Y 3/2 | 100 | | | | | CL | |
| 5-12 | 10YR 4/2 | 85 | 7.5 YR 5/6 | 15 | C | PL | CL | |
| 12-20 | GLEY1 4/5GY | 88 | 7.5 YR 5/8 | 12 | C | M | C | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ✔ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present? Yes** ✔ **No** ___

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✔ Oxidized Rhizospheres along Living Roots (C3)
- ✔ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ___ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 5

**Wetland Hydrology Present? Yes** ✔ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

AAD+ reaction positive starting at 5-inch depth from soil surface.

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Garvey Reservoir Rehabilitation Project City/County: Monterey Park/Los Angeles Sampling Date: 11/23/2021

Applicant/Owner: Metropolitan Water District of Southern California State: CA Sampling Point: SP02

Investigator(s): Malek Al-Marayati Section, Township, Range: 34, 01S, 12W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 15

Subregion (LRR): C Lat: 34.047574 Long: -118.120726 Datum: WGS84

Soil Map Unit Name: Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | |
|---|---|---|
| Hydrophytic Vegetation Present? | Yes _____ No ✔ | **Is the Sampled Area within a Wetland?** Yes _____ No ✔ |
| Hydric Soil Present? | Yes _____ No ✔ | |
| Wetland Hydrology Present? | Yes _____ No ✔ | |

Remarks:

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 30 ft.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. Olea europaea | 13 | Y | UPL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 13 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 ft.) | | | |
| 1. Eriogonum fasciculatum | 30 | Y | UPL |
| 2. Atriplex semibaccata | 5 | N | FAC |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 35 | = Total Cover | |
| **Herb Stratum** (Plot size: 5 ft.) | | | |
| 1. Avena barbata | 80 | Y | UPL |
| 2. Salsola tragus | 3 | N | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 83 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 15 ft.) | | | |
| 1. NA | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum 17 % Cover of Biotic Crust 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species _____ | x 1 = _____ |
| FACW species _____ | x 2 = _____ |
| FAC species _____ | x 3 = _____ |
| FACU species _____ | x 4 = _____ |
| UPL species _____ | x 5 = _____ |
| Column Totals: _____ (A) | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes _____ No ✔

Remarks:

## SOIL

Sampling Point: SP02

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Redox Features Type[1] | Redox Features Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-20 | 10 YR 3/4 | 100 | | | | | SL | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present? Yes _____ No ✔**

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

**Wetland Hydrology Present? Yes _____ No ✔**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Garvey Reservoir Rehabilitation Project City/County: Monterey Park/Los Angeles Sampling Date: 11/23/2021

Applicant/Owner: Metropolitan Water District of Southern California State: CA Sampling Point: SP03

Investigator(s): Malek Al-Marayati Section, Township, Range: 34, 01S, 12W

Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): C Lat: 34.047940 Long: -118.120625 Datum: WGS84

Soil Map Unit Name: Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ✔

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ✔ | No _____ | **Is the Sampled Area within a Wetland?** Yes ✔ No _____ |
| Hydric Soil Present? | Yes ✔ | No _____ | |
| Wetland Hydrology Present? | Yes ✔ | No _____ | |

Remarks:

Detention basin is regularly mowed for flood control maintenance.

### VEGETATION – Use scientific names of plants.

| Tree Stratum (Plot size: 30 ft.) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. NA | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| | 0 | = Total Cover | |
| **Sapling/Shrub Stratum** (Plot size: 15 ft.) | | | |
| 1. Washingtonia robusta | 5 | Y | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | 5 | = Total Cover | |
| **Herb Stratum** (Plot size: 5 ft.) | | | |
| 1. Cyperus difformis | 10 | Y | OBL |
| 2. Poa pratensis | 25 | Y | FAC |
| 3. Lythrum hyssopifolia | 12 | Y | OBL |
| 4. Helminthotheca ehcioides | 3 | N | FAC |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 50 | = Total Cover | |
| **Woody Vine Stratum** (Plot size: 15 ft.) | | | |
| 1. NA | | | |
| 2. | | | |
| | 0 | = Total Cover | |

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust 0

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species _____ | x 1 = _____ |
| FACW species _____ | x 2 = _____ |
| FAC species _____ | x 3 = _____ |
| FACU species _____ | x 4 = _____ |
| UPL species _____ | x 5 = _____ |
| Column Totals: _____ (A) | _____ (B) |

Prevalence Index = B/A = _____

**Hydrophytic Vegetation Indicators:**

✔ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes ✔ No _____

Remarks:

## SOIL

Sampling Point: SP03

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | % | Redox Features Color (moist) | % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-9 | 10YR 3/4 | 96 | 7.5YR 5/8 | 4 | C | M | SCL | |
| 9-20 | 10YR 3/3 | 90 | 7.5YR 5/8 | 10 | C | M | SCL | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✔ Redox Depressions (F8)
- ___ Vernal Pools (F9)

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

**Hydric Soil Present?** Yes ✔ No ___

Remarks:

Soils are saturated throughout 0-20 inch profile.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes ___ No ✔ Depth (inches): _____

Water Table Present? Yes ✔ No ___ Depth (inches): 18

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 0

**Wetland Hydrology Present?** Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# Appendix C

Cultural Resources Assessment

# Garvey Reservoir Rehabilitation Project

## Cultural Resources Assessment

*prepared for*

**The Metropolitan Water District of Southern California**
P.O. Box 54153
Los Angeles, California 90054-0153
Contact: Michelle Morrison, Environmental Specialist

*prepared by*

**Rincon Consultants, Inc.**
250 East 1st Street, Suite 1400
Los Angeles, California 90012
Contact: Steven Treffers, MHP

**November 2021**

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Please cite this report as follows:

Perzel, Rachel, Andrew Rodriquez, Kyle Montgomery, Steven Treffers, Ken Victorino, and Shannon Carmack

2021. *Garvey Reservoir Rehabilitation Project Cultural Resources Assessment*. Rincon Consultants, Inc. Project No. 20-09668. Report on file at the South Central Coastal Information Center, California State University, Fullerton.

# Table of Contents

Executive Summary ..... 1
Purpose and Scope ..... 1
Dates of Investigation ..... 1
Summary of Findings ..... 1
Unanticipated Discovery of Cultural Resources ..... 2
Unanticipated Discovery of Human Remains ..... 2
1 Introduction ..... 3
1.1 Project Location ..... 3
1.2 Project Description ..... 6
1.3 Personnel ..... 7
2 Regulatory Setting ..... 8
2.1 California Environmental Quality Act ..... 8
3 Natural and Cultural Setting ..... 11
3.1 Environmental Setting ..... 11
3.2 Prehistoric Setting ..... 11
3.3 Ethnographic Context ..... 13
3.4 History ..... 14
4 Background Research ..... 17
4.1 Cultural Resources Records Search ..... 17
4.2 Archival and Background Research ..... 17
4.3 Sacred Lands File Search ..... 18
4.4 Field Survey ..... 18
5 Results ..... 19
5.1 Garvey Reservoir Property ..... 19
6 Findings and Conclusions ..... 29
6.1 Unanticipated Discovery of Cultural Resources ..... 29
6.2 Unanticipated Discovery of Human Remains ..... 29
7 References ..... 30

# Tables

Table 1 Construction Chronology ..... 26

# Figures

Figure 1 Project Location Map ..... 4
Figure 2 Project Site Features ..... 5
Figure 3 Site Photographs of Reservoir, I/O Tower, Junction Structure, and Adminstration Building/Water Quality Laboratory ..... 21
Figure 4 Site Photographs of Former Caustic Soda Structure, Backup Generator Enclosure, Sodium Hypoclorite Tank Farm, and Construction Staging Area ..... 22
Figure 5 Site Photographs of Construction Trailer Staging Area, Surge Tank, and Communications Site ..... 24
Figure 6 Garvey Reservoir in 1964 ..... 26

# Appendices

Appendix A CHRIS Search Results
Appendix B Sacred Lands File Results
Appendix C California DPR 523 Series Forms

# Executive Summary

## Purpose and Scope

The Metropolitan Water District of Southern California ("Metropolitan") retained Rincon Consultants, Inc. ("Rincon") to conduct a cultural resources assessment for the Garvey Reservoir Rehabilitation Project ("project"), which would occur within the Garvey Reservoir property at 1061 South Orange Avenue in Monterey Park, Los Angeles County, California ("subject property/project site"). The project involves various upgrades, replacements, and improvements to the subject property, including replacement of the reservoir's floating cover and liner, replacement of the standby generator, seismic upgrades at the reservoir's inlet/outlet (I/O) tower and Junction Structure, upgrades to and/or redesign of the facility electrical system, improvements to the surge tank telemetry equipment, redesign of and upgrades to the Administration Building and Water Quality Laboratory, and other miscellaneous site upgrades. This assessment was prepared to support the project's compliance with the requirements of the California Environmental Quality Act (CEQA). The assessment includes searches of the California Historical Resources Information System (CHRIS) and the Native American Heritage Commission Sacred Lands File (SLF), background and archival research, an archaeological and built environment field survey of the project site, the recordation and evaluation of one property for historical resources eligibility, and preparation of this report.

## Dates of Investigation

An archaeological and built environment survey was conducted on October 12, 2021. In addition, Rincon contacted the South Central Coastal Information Center to request a CHRIS search and the Native American Heritage Commission to request an SLF search on September 23, 2021. The results of the SLF search were received on October 26, 2021, and the results of the CHRIS search were received on November 29, 2021. The historical evaluation summarized in this assessment was ongoing from September to December 2021.

## Summary of Findings

A search of the CHRIS did not identify the presence of prehistoric resources on the property or within a 0.25-mile buffer. The search identified one historic-period transmission tower that was previously recorded, evaluated and recommended ineligible for historic designation within the 0.25-mile buffer but outside the subject property. The SLF search conducted for this study returned positive results. However, SLF searches are conducted based on United States Geological Survey quadrangle maps, which cover an approximately 50- to 70-square-mile area per map. Therefore, positive SLF search results alone do not indicate the presence of tribal heritage resources in the immediate vicinity of the subject property. The archaeological survey conducted for this study was negative for archaeological resources.

The background research and survey conducted for this study confirmed the subject property includes several built environment features that are at least 45 years of age. The property was therefore recorded and evaluated for historical resources eligibility on California Department of Parks and Recreation 523 Series forms. As a result of the current study, the Garvey Reservoir

property at 1061 South Orange Avenue in Monterey Park is recommended ineligible for listing in the National Register of Historic Places and the California Register of Historical Resources and therefore is not considered a historical resource pursuant to Section 15064.5(a) of the CEQA Guidelines.

Based on the findings of the current investigation as summarized above, the potential for impacts to historical or archaeological resources under CEQA is **low.**

Although no known archaeological deposits are expected to be present within the project site, unanticipated discoveries during construction remain a possibility. As standard best management practices, Rincon recommends implementation of the following measures in the unlikely event of an unanticipated discovery during project construction.

# Unanticipated Discovery of Cultural Resources

In the unlikely event cultural resources are encountered during ground-disturbing activities, work in the immediate area should halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the National Register of Historic Places or the California Register of Historical Resources, additional work such as data recovery excavation and Native American consultation to treat the find may be warranted.

# Unanticipated Discovery of Human Remains

If human remains are unexpectedly encountered, the State of California Health and Safety Code Section 7050.5 states no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the unlikely event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

# 1 Introduction

The Metropolitan Water District of Southern California ("Metropolitan") retained Rincon Consultants, Inc. ("Rincon") to conduct a cultural resources assessment for the Garvey Reservoir Rehabilitation Project ("project"). The project would occur within the Garvey Reservoir property at 1061 South Orange Avenue in Monterey Park, Los Angeles County, California ("subject property/project site"). The project involves various upgrades, replacements, and improvements to the subject property, including replacement of the reservoir's floating cover and liner, replacement of the standby generator, seismic upgrades at the reservoir's inlet/outlet (I/O) tower and Junction Structure, upgrades to and/or redesign of the facility electrical system, improvements to the surge tank telemetry equipment, redesign of and upgrades to the Administration Building and Water Quality Laboratory, and other miscellaneous site upgrades. This assessment was prepared in support of the project's compliance with the requirements of the California Environmental Quality Act (CEQA). The assessment includes searches of the California Historical Resources Information System (CHRIS) and the Native American Heritage Commission (NAHC) Sacred Lands File (SLF), background and archival research, an archaeological and built environment field survey of the project site, the recordation and evaluation of the Garvey Reservoir property for historical resources eligibility, and preparation of this report.

## 1.1 Project Location

The project site is an approximately 130-acre portion of a 142-acre property located at 1061 South Orange Avenue in Monterey Park (Los Angeles County Assessor's Parcel Numbers 5260-013-910 and 5260-013-905). The site is regionally accessible from State Route 60, located approximately 0.9 mile south of the project site, and Interstate 10, located approximately 1.4 miles north of the project site. Local access to the property is provided via South Orange Avenue, off of which three driveways are located immediately north of the South Orange Avenue/Tegner Drive intersection. Surrounding land uses include residential neighborhoods to the west, north, south, and east; Hillcrest Elementary School to the east; the Monterey Park City Yard to the north; and Garvey Ranch Park to the north (Figure 1).

The project site is developed with Garvey Reservoir in the central portion of the site. In addition, various associated appurtenant structures and features are located throughout the site, including the Administration Building and Water Quality Laboratory, standby generator, Sodium Hypochlorite Tank Farm, and Junction Structure located in a paved yard in the east-central portion of the project site; a surge tank, construction trailer and paved parking area located immediately south of the reservoir; an unpaved construction staging area located immediately northwest of the reservoir; a communications tower and paved parking lot located southeast of the reservoir; and paved roadways, power lines, mature trees, and landscaping throughout the project site (Figure 2).

## Figure 1 Project Location Map

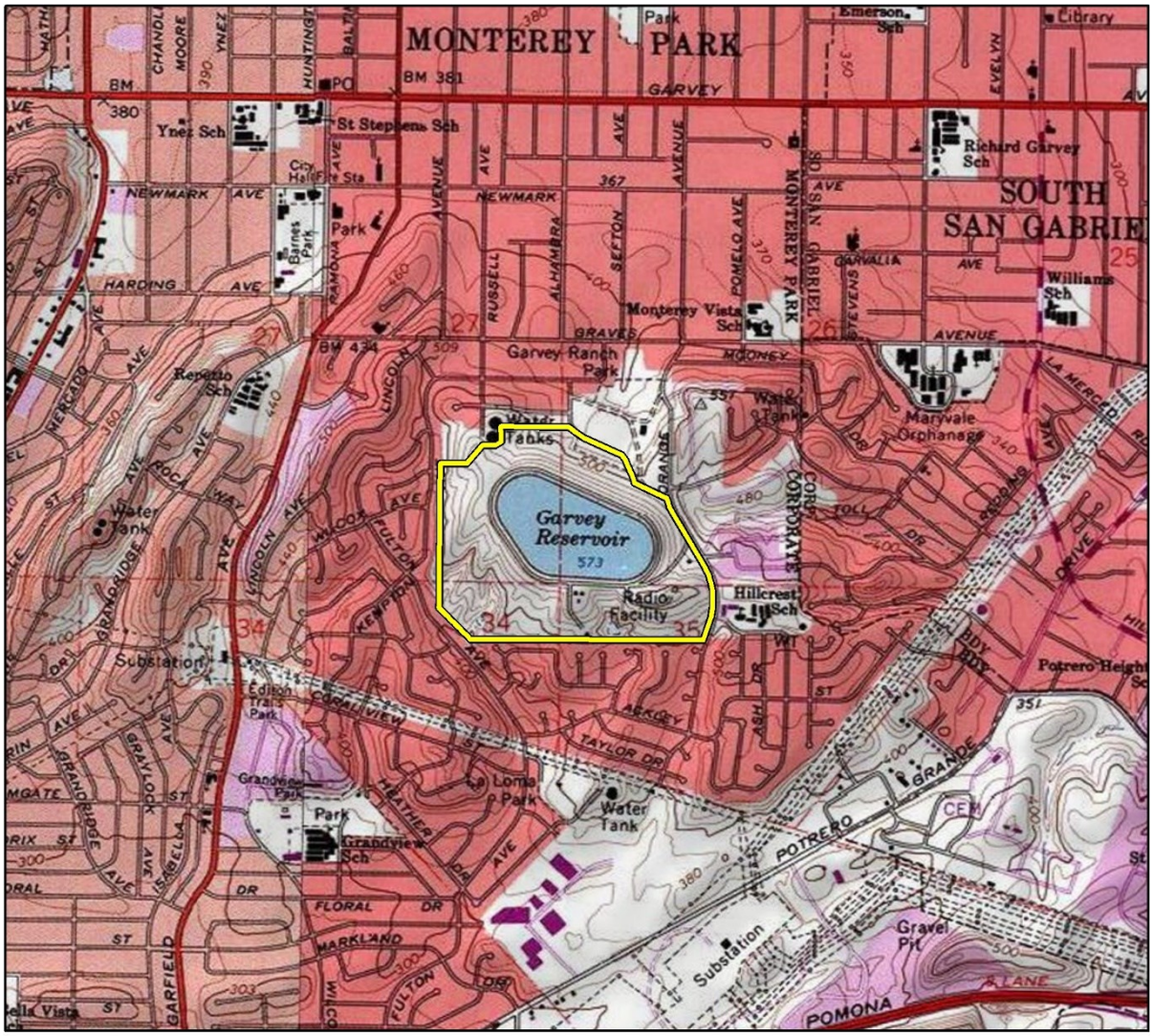


**Figure 2 Project Site Features**


*Imagery provided by Microsoft Bing and its licensors © 2021.*

Fig 2-3 Existing Site Facilities

# 1.2 Project Description

The proposed project entails a variety of rehabilitation components, each of which is summarized below.

## Reservoir Cover and Liner

The proposed project includes the following elements related to the reservoir cover and liner:

- Redesign of the I/O tower float assembly and seismic upgrades;
- Replacement of the polypropylene liner floating cover;
- Inspection of the reservoir drainage system underneath the liner (including the underlying geo-textile cushion, underdrain, circulation piping, and appurtenant work) and peripheral piping and repair or upgrade of the system and piping, if needed;
- Upgrade of the leak detection and monitoring system; and
- Reservoir start-up testing procedures.

## I/O Tower Seismic Upgrades

The proposed project includes the seismic rehabilitation of the I/O tower and access bridge. Equipment within the I/O tower and lighting fixtures along the access bridge would also likely be upgraded and replaced. In addition, whether or not the fixtures along the access bridge are replaced, LED lights would be installed in the fixtures.

## Junction Structure

The proposed project includes replacement of five valves in the Junction Structure to improve reliability.

## Facility Electrical System

The proposed project includes the upgrade of the Garvey Reservoir property's electrical system, including its instrumentation. The majority of proposed electrical system work would occur underground between the Administration Building/Water Quality Laboratory and Sodium Hypochlorite Tank Farm. An underground conduit may also be installed between the Administration Building and the existing communications tower on the southeastern portion of the project site.

## Standby Generator

The proposed project would replace the facility's existing standby generator and its appurtenant electrical system, including transfer switches and the switchgear unit. The existing concrete block building housing the generator would be demolished. The new generator would likely be larger than the existing generator and would either be located in the open air under a canopy structure or would be located in a new enclosed building.

## Surge Tank Telemetry

The proposed project includes improvements to the existing surge tank's telemetry equipment to connect it to associated pumps and to upgrade pressure switches and automated tank controls. A

direct cable from the associated pumps in the Junction Structure to the surge tank pressure switch would also be installed.

### Administration Building and Water Quality Laboratory Rehabilitation

The proposed project includes the following elements related to the Administration Building/Water Quality Laboratory:

- Relocation of the existing Water Quality Laboratory to the space currently occupied by the Administration Building and vice-versa;
- Modifications to the existing restroom for compliance with the 2010 ADA Standard for Accessible Design and 2019 California Building Code (or most recent iteration in effect at the time);
- Provision of a new Americans with Disabilities Act (ADA)-compliant parking stall with accessible path of travel to the new building entrance;
- Relocation of the emergency eye wash station from outside the Administration Building to immediately adjacent to the Water Quality Laboratory;
- Replacement of the retaining wall on the south side of the structure to prevent ponding and overflow from precipitation; and
- Modifications/upgrades to the heating, ventilation, and air conditioning (HVAC) system and water heater.

### Miscellaneous Site Upgrades

The proposed project also includes various smaller miscellaneous upgrades throughout the project site, which may include the following:

- Upgrades to the ammonia feed system;
- Repaving or repair of existing reservoir roads;
- Replacement of chain link fencing and gates within property and along the perimeter;
- Landscaping removal and/or replacement; and
- Security upgrades.

## 1.3 Personnel

This assessment was managed by Architectural Historian Rachel Perzel, MA. The report was co-authored by Ms. Perzel, Assistant Architectural Historian Andrew Rodriguez, MA, and Archaeologist Kyle Montgomery, BA. Senior oversight for the study was provided by Senior Architectural Historian, Steven Treffers, MHP, and Senior Archaeologist and the study's Principal Investigator, Ken Victorino, MA, Registered Professional Archaeologist. Principal Architectural Historian Shannon Carmack reviewed this report for quality assurance and quality control. All of the above-noted contributors to this study meet the Secretary of the Interior's Professional Qualification Standards in their respective fields (36 Code of Federal Regulations [CFR] Part 61). GIS Analyst Allysen Valencia prepared the figures found in the report.

# 2 Regulatory Setting

This section includes a discussion of the applicable laws, ordinances, regulations, and standards governing cultural resources that should be adhered to before and during implementation of the proposed project.

## 2.1 California Environmental Quality Act

As part of CEQA, California Public Resources Code (PRC) Section 21804.1 requires lead agencies determine if a project could have a significant impact on historical resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states a resource meeting any of the above criteria is generally considered historically or culturally significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the National Register of Historic Places (NRHP), discussed in the following subsection, are automatically listed in the CRHR and are therefore historical resources under CEQA.

Under CEQA, an effect that results in a substantial adverse change in the significance of a historical resource is considered a significant effect on the environment (CEQA Guidelines Section 15064.5[b]). A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]). Material impairment is defined as the demolition or alteration in an adverse manner of those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register of historical resources (CEQA Guidelines Section 15064.5[b][2][A-C]).

### National Register of Historic Places

The NRHP was established by the National Historic Preservation Act of 1966 as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The NRHP recognizes properties that are significant at the federal, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it meets one or more of the following criteria:

**Criterion A** Is associated with events that have made a significant contribution to the broad patterns of our history;

**Criterion B** Is associated with the lives of persons significant in our past;

**Criterion C** Embodies the distinctive characteristics of a type, period, or method of installation, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction;

**Criterion D** Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above designation criteria, resources must also retain integrity, or enough of their historic character or appearance to be "recognizable as historical resources and to convey the reasons for their significance" (California Office of Historic Preservation 2002). The National Park Service (NPS) recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined in the following manner (NPS 1995):

1) **Location.** The place where the historic property was constructed or the place where the historic event occurred;
2) **Design.** The combination of elements that create the form, plan, space, structure, and style of a property;
3) **Setting.** The physical environment of a historic property;
4) **Materials.** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
5) **Workmanship.** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6) **Feeling.** The property's expression of the aesthetic or historic sense of a particular period of time; and/or
7) **Association.** The direct link between an important historic event or person and a historic property.

## California Register of Historical Resources

The CRHR was created by Assembly Bill 2881, which was passed in 1992. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (PRC Section 5024.1[a]). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (PRC Section 5024.1[b]). Certain properties are determined by the statute to be automatically included in the CRHR by law, including California properties formally determined eligible for, or listed in, the NRHP (PRC Section 5024.1[d]).

Properties are eligible for listing in the CRHR if they meet one or more of the following criteria:

**Criterion 1** Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

**Criterion 2** Is associated with the lives of persons important in our past

**Criterion 3** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

**Criterion 4** Has yielded, or may be likely to yield, information important in prehistory or history

In addition, PRC Section 21083.2(a) states that if a lead agency determines a project may have a significant effect on unique archaeological resources, the environmental impact report shall address impacts to these resources. PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

**Criterion 1** Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

**Criterion 2** Has a special and particular quality such as being the oldest of its type or the best available example of its type

**Criterion 3** Is directly associated with a scientifically recognized important prehistoric or historic event or person

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]).

# 3 Natural and Cultural Setting

## 3.1 Environmental Setting

Located at 1061 South Orange Avenue in Monterey Park, Los Angeles County, California, the subject property is owned by Metropolitan and developed with Garvey Reservoir in addition to a variety of associated structures and facilities. The property is depicted on Township 01 South, Range 12 West, Sections 26, 27, 34 and 35 of the United States Geological Survey (USGS) *El Monte* 7.5-minute quadrangle. It is surrounded primarily by suburban residential development, although the Monterey Park City Yard and Garvey Ranch Park border it to the north.

## 3.2 Prehistoric Setting

During the 20th century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of southern California (e.g., Jones and Klar 2005 and Moratto 1984). Wallace (1955 and 1978) devised a prehistoric chronology for the southern California coastal region that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Wallace based his chronology on early studies that lacked the chronological precision of absolute dates (Moratto 1984). Since then, Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

### Early Man Horizon (circa 10,000 to 6000 BCE)

Numerous pre-8000 Before Common Era (BCE) sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001). One of them, the Arlington Springs site on Santa Rosa Island, produced human remains dating to approximately 13,000 years ago (Arnold et al. 2004; Johnson et al. 2002). On San Miguel Island, human occupation at Daisy Cave (SMI-261) has also been dated to nearly 13,000 years ago. Some of the earliest examples of basketry on the Pacific Coast, dating to over 12,000 years old, were found at the Daisy Cave site (Arnold et al. 2004).

Although few Clovis or Folsom style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lake shores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6000 BCE. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

## Milling Stone Horizon (6000 to 3000 BCE)

Wallace (1955) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The predominance of such artifact types indicates a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources, including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, and seeds and other plant products, was consumed (Kowta 1969; Reinman 1964). Variability in artifact assemblages over time and between coastal and inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Jones 1996; Byrd and Raab 2007). Locally available tool stone dominates lithic artifact assemblages associated with Milling Stone Horizon sites. Chopping, scraping, and cutting tools are very common along with ground stone tools, such as manos and metates. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon, and increased dramatically in later periods (Wallace 1955 and 1978; Warren 1968).

Two types of artifacts considered diagnostic of the Milling Stone Horizon are the cogged stone and discoidal, most of which have been found in sites dating between 4000 and 1000 BCE (Moratto 1984), though possibly as far back as 5500 BCE (Couch et al. 2009). The cogged stone is a ground stone object with gear-like teeth on the perimeter produced from a variety of materials. The function of cogged stones is unknown, although ritualistic or ceremonial uses have been postulated (Eberhart 1961). Discoidals, although similar to cogged stones, are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals were often purposefully buried, or "cached." Cogged stones have been collected in Los Angeles County, although their distribution appears to center on the Santa Ana River basin (Eberhart 1961).

## Intermediate Horizon (3000 BCE to 500 CE)

Wallace's Intermediate Horizon dates from approximately 3000 BCE to 500 Common Era (CE) and is characterized by a shift toward a hunting and maritime subsistence strategy as well as greater use of plant foods. A noticeable trend towards a greater adaptation to local resources including a broad variety of fish, land mammals, and sea mammals along the coast occurred during the Intermediate Horizon. Tool kits for hunting, fishing, and processing food and materials reflect this increased diversity with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. This change in milling stone technology is believed to signal a transition from the processing and consumption of hard seed resources to the increased reliance on acorns (Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate Horizon typically included fully flexed burials oriented toward the west (Warren 1968).

## Late Prehistoric Horizon (500 CE–Historic Contact)

During Wallace's (1955 and 1978) Late Prehistoric Horizon, the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. A greater variety of artifact types was observed during this period and high-quality exotic lithic materials were used for small, finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage, and an increased use of asphaltum for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric Horizon sites,

and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955). This change in subsistence focus, material culture, and burial practices coincides with the westward migration of Uto-Aztecan language speakers from the Great Basin region to Los Angeles, Orange, and western Riverside counties (Sutton 2008; Potter and White 2009).

## 3.3 Ethnographic Context

### Gabrielino – Tongva

The project site is located within the traditional territory of the Native American group known as the Gabrielino. The name Gabrielino was applied by the Spanish to those natives that were attached to Mission San Gabriel (Bean and Smith 1978). Today, most contemporary Gabrielino prefer to identify themselves as Tongva, a term that will be used throughout the remainder of this section (King 1994).

Tongva territory included the Los Angeles basin and southern Channel Islands as well as the coast from Aliso Creek in the south to Topanga Creek in the north. Their territory encompassed several biotic zones, including Coastal Marsh, Coastal Strand, Prairie, Chaparral, Oak Woodland, and Pine Forest (Bean and Smith 1978).

The Tongva language belongs to the Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin region (Mithun 2004). This language family includes dialects spoken by the nearby Juaneño and Luiseño but is considerably different from those of the Chumash people living to the north and the Diegueño (including Ipai, Tipai, and Kumeyaay) people living to the south.

Tongva society was organized along patrilineal non-localized clans, a common Takic pattern. Each clan had a ceremonial leader and contained several lineages. The Tongva established large permanent villages and smaller satellite camps throughout their territory. Recent ethnohistoric work suggests a total tribal population of nearly 10,000, considerably more than earlier estimates of around 5,000 people (O'Neil 2002; Bean and Smith 1978).

Tongva subsistence was oriented around acorns supplemented by the roots, leaves, seeds, and fruits of a wide variety of plants. Meat sources included large and small mammals, freshwater and saltwater fish, shellfish, birds, reptiles, and insects. (Bean and Smith 1978; Langenwalter et al. 2001; Kroeber 1925; McCawley 1996). The Tongva employed a wide variety of tools and implements to gather and hunt food. The digging stick, used to extract roots and tubers, was frequently noted by early European explorers (Rawls 1984). Other tools included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Like the Chumash, the Tongva made oceangoing plank canoes (known as a ti'at) capable of holding six to 14 people and used for fishing, travel, and trade between the mainland and the Channel Islands. Tule reed canoes were employed for near-shore fishing (Blackburn 1963; McCawley 1996).

Chinigchinich, the last in a series of heroic mythological figures, was central to Tongva religious life at the time of Spanish contact (Kroeber 1925). The belief in Chinigchinich was spreading south among other Takic-speaking groups at the same time the Spanish were establishing Christian missions. Elements of Chinigchinich beliefs suggest it was a syncretic mixture of Christianity and native religious practices (McCawley 1996).

Prior to European contact, deceased Tongva were either buried or cremated, with burial more common on the Channel Islands and the adjacent mainland coast and cremation on the remainder

of the coast and in the interior (Harrington 1942; McCawley 1996). After pressure from Spanish missionaries, cremation essentially ceased during the post-contact period (McCawley 1996).

# 3.4 History

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769 to 1822), the Mexican Period (1822 to 1848), and the American Period (1848 to present). Each of these periods is briefly described below, along with a brief history of Monterey Park and of Metropolitan.

## Spanish Period (1769 to 1822)

Spanish exploration of California began when Juan Rodríguez Cabrillo led the first European expedition into the region in 1542. During this expedition, he anchored in Malibu Lagoon and named the area Pueblo de las Canoas for the Chumash canoes. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). In 1769, Gaspar de Portolá and Franciscan Father Junípero Serra established the first Spanish settlement at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish between 1769 and 1823 in what was then known as Alta (upper) California. Mission San Gabriel Arcángel was founded in 1771. It was during this time that initial Spanish settlement of the project site vicinity began.

## Mexican Period (1822 to 1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810 to 1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). About 45 land grants (ranchos) were located in Los Angeles County; of these, Rancho La Merced encompassed the project site vicinity.

The Mexican Period for Los Angeles County and adjacent areas ended in early January 1847. Mexican forces fought combined United States Army and Navy forces in the Battle of the San Gabriel River on January 8, 1847, and in the Battle of La Mesa on January 9, 1847 (Nevin 1978). American victory in both battles confirmed the capture of Los Angeles by American forces (Rolle 2003). On January 10, 1847, leaders of the Pueblo de Los Ángeles surrendered peacefully after Mexican General José María Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California Andrés Pico surrendered all of Alta California to United States Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

## American Period (1848 to Present)

The Mexican Period officially ended statewide in early January 1848 with the signing of the Treaty of Guadalupe Hidalgo, formally concluding the Mexican-American War. Per the treaty, the United States agreed to pay Mexico $15 million for conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. California gained statehood in 1850, and this political shift set in motion a variety of factors that began to erode the rancho system.

In 1848, the discovery of gold in northern California led to the California Gold Rush, though gold was found in 1842 in San Francisquito, about 35 miles northwest of Los Angeles (Workman 1935; Guinn 1976). By 1853, the population of California exceeded 300,000. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through the 1850s. However, a severe drought in the 1860s decimated cattle herds and drastically affected rancheros' source of income. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869. Property boundaries loosely established during the Mexican era led to disputes with new incoming settlers, problems with squatters, and lawsuits. The initiation of property taxes proved onerous for many southern California ranchers, given the size of their holdings. Rancheros were often encumbered by debt and the cost of legal fees to defend their property. As a result, much of the rancho lands were sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

In the 1880s, a dramatic boom fueled by various factors including increasingly accessible rail travel, agricultural development and improved shipment methods, and favorable advertisement occurred in southern California (Dumke 1994). In 1883, the California Immigration Commission designed an advertisement declaring the state as "the Cornucopia of the World" (Poole 2002:36). New southern Californian towns were promoted as havens for good health and economic opportunity.

## City of Monterey Park

Circa 1840, Spanish rancher Jose Lugo built the first adobe home in the vicinity of present-day Monterey Park near the current South Garfield Avenue. Following this time, Richard Garvey, a mail rider for the United States Army whose route took him through Monterey Pass (now Garvey Avenue), settled in the King's Hills. Garvey began subdividing his property, selling the parcels to pay his debts. To support development, he transported spring water from the Hondo River and constructed a 54-foot-high dam to form Garvey Lake, which was historically located within current-day Garvey Ranch Park. In 1906, the area's first subdivision, Ramona Acres, was developed north of Garvey Avenue and east of Garfield Avenue in an area that was historically primarily agricultural (*Los Angeles Times* 1995; Monterey Park n.d.).

In 1916, residents in the area moved to incorporate in reaction to a proposal by the cities of Pasadena, South Pasadena and Alhambra to build a sewage treatment facility in the vicinity. The community voted to incorporate itself as Monterey Park, after the nearby Monterey Hills, on May 29, 1916, and the newfound City's Board of Directors promptly outlawed sewage treatment plants within the city limits. Real estate became a thriving industry during the 1920s, and the area's population grew with subdivisions and commercial properties. Although development slowed during the depression era, the post-World War II period saw revived development, particularly in the central portion of the city that was previously undeveloped. A series of annexations of surrounding acreage also occurred during this period (*Los Angeles Times* 1995; Monterey Park n.d.). Since that time, the city has continued to densify, and in 2019, the population was estimated at 59,669 (United States Census Bureau 2019).

## Metropolitan Water District

In 1928, Metropolitan was established by the California State Legislature through the Metropolitan Water District Act. Metropolitan's first Board of Directors represented the cities of Anaheim, Beverly Hills, Burbank, Colton, Glendale, Los Angeles, Pasadena, San Bernardino, San Marino, Santa Ana, and Santa Monica (AECOM 2015). In July of 1929, F.E. Weymouth assumed the dual role of general

manager and chief engineer of Metropolitan, and by the end of the year, Metropolitan's service area covered 600 square miles. In April 1930, under Weymouth's leadership, Metropolitan and the United States Department of the Interior entered a contract for the delivery of water to Metropolitan, and the following year Metropolitan assumed management of the engineering of the Colorado River Aqueduct (CRA; AECOM 2015).

To enable construction of the CRA, Metropolitan helped forge landmark federal agreements that divided up the Colorado River water supply and led to the creation of Hoover Dam. Voters overwhelmingly approved a $220 million Depression-era bond that provided jobs to 35,000 workers. As part of the CRA, Metropolitan constructed 242 miles of canals, siphons, conduit, and pipelines; five pumping plants; and over 90 miles of tunnels, including a waterway under Mount Jacinto. On June 17, 1941, a valve was turned on at the new F.E. Weymouth Water Softening Plant, and for the first time, water flowed from the Colorado River to the city of Pasadena. By the end of July, water would flow to Beverly Hills, Burbank, Compton, and Santa Monica; water service to Orange County would soon follow (Metropolitan n.d.)

The mid-20th century was a time of marked expansion for the Los Angeles region and, in turn, for Metropolitan. Population growth in conjunction with an extended drought in California led to an increased demand for water (*Los Angeles Times* 1953). During this period, numerous infrastructure projects that further facilitated growth of the region were initiated as Metropolitan expanded the CRA. One such project was the construction of Garvey Reservoir, which is situated on a hilly area in Monterey Park.

The construction of Garvey Reservoir was part of a larger Metropolitan project that was estimated at a cost of $80 million and was a component of Metropolitan's mid-20th century expansion of the CRA. In 1952, the Metropolitan Board of Directors voted to pass a $200 million bond issue to expand the CRA. In addition to Garvey Reservoir, the expansion included construction of four pumps with associated delivery lines, the "second barrel" siphons, the Cajalco Reservoir dam in Corona, an additional 230-kilovolt power line from Hoover Dam to the Camino switching station, and a treatment facility near Yorba Linda. The F.E. Weymouth Water Softening Plant was doubled in size during this period (Gruen 1998).

Metropolitan continued to expand its footprint throughout the second half of the 20th century. In 1959, the California State Legislature approved the Burnes-Porter Act, which ultimately led to the State Water Project on which Metropolitan was the largest contractor. By the early 1960s, Metropolitan had forged agreements with the San Diego County Water Authority, Pomona Water District, and several local authorities to manage their water supplies. By 1965, the number of public agencies that had joined Metropolitan increased to 26, and Metropolitan's service area covered more than 4,500 miles (AECOM 2015). Presently, Metropolitan operates the CRA, sixteen hydroelectric facilities, nine reservoirs, and five water treatment plants. Metropolitan currently delivers water from the Colorado River and northern California to roughly 19 million customers in southern California (Metropolitan n.d.).

# 4 Background Research

## 4.1 Cultural Resources Records Search

On September 23, 2021, a CHRIS search was requested from the South Central Coastal Information Center at California State University, Fullerton. The purpose of the CHRIS search is to identify previously conducted cultural resources studies and previously recorded cultural resources at the project site and within a 0.25-mile buffer surrounding it so that the cultural sensitivity of the area may be assessed. The results of the CHRIS search were received on November 29, 2021. The search results did not identify any prehistoric resources within the subject property or within a 0.25-mile buffer. One previously recorded historic-period resource (P-19-190175), a transmission tower that was recorded, evaluated, and recommended ineligible for historic designation, was identified by the search.

As part of the background research effort, Rincon also reviewed the NRHP, CRHR, lists of the California Historical Landmarks and Points of Interest, the Built Environment Resources Directory, and the Archaeological Determination of Eligibility list. Review of these inventories did not identify any known cultural resources within the project site or immediate vicinity that have the potential to be impacted by the project. The presence of the Monterey Park Historical Museum, which includes Garvey Ranch House, on a property immediately north of Garvey Reservoir was identified by this effort. Garvey Ranch House is a historic-period residence associated with area pioneer Richard Garvey. It appears a group of citizens attempted to nominate the property for inclusion in the CRHR in 2009; however, the property is not currently listed in the CRHR or any other inventory of historical resources. Given its physical relationship to the reservoir and the nature of the proposed project activities, the project does not have the potential to impact the Garvey Ranch House. Therefore, it is not discussed further in this report.

## 4.2 Archival and Background Research

Archival research was completed throughout September and October 2021 and focused on the review of a variety of primary and secondary source materials relating to the history and development of the project site and its surroundings. Sources included, but were not limited to, historical maps and aerial photographs, contemporary newspaper articles, and written histories of the area. The following is a list of sources consulted during research pertaining to the subject property.

- Historical aerial photographs accessed digitally via Nationwide Environmental Title Research (NETR) Online, Inc. and the University of California, Santa Barbara Map and Imagery Lab
- Historical topographic maps accessed digitally via USGS
- Historical maps accessed digitally via the Los Angeles Public Library
- Historical newspaper articles accessed digitally via newspapers.com
- Archival documents provided by Metropolitan
- Additional sources as indicated in Section 7, *References*

## 4.3 Sacred Lands File Search

Rincon contacted the NAHC on September 23, 2021, to request a search of the SLF. A response from the NAHC was received on October 25, 2021, stating that the results of the SLF search were positive, meaning tribal heritage resources are noted in the project site vicinity (Appendix B). However, SLF searches are conducted by USGS quadrangle map, each of which covers an approximately 50- to 70-square-mile area, and the NAHC does not provide the specific location of tribal heritage resources. Therefore, a positive SLF search alone does not necessarily indicate the presence of tribal heritage resources within the immediate vicinity of the project site.

## 4.4 Field Survey

On October 12, 2021, Rincon Archaeologist Kyle Montgomery conducted a pedestrian field survey of the project site to identify archaeological and built environment resources. All areas of the project site that were accessible were subject to an intensive pedestrian survey. A reconnaissance survey via monocular was performed on any areas that were inaccessible due to steep slopes. Mr. Montgomery utilized parallel transects spaced approximately 10 to 15 meters apart in open space areas. Areas of exposed ground were inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, ground stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and features that might suggest the potential for former structures or buildings (e.g., standing exterior walls, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows and drainages were also visually inspected.

Under the direction of Rincon Architectural Historian Rachel Perzel, Mr. Montgomery visually inspected all buildings, structures, and landscaped features located within and immediately adjacent to the project site, documenting their style, method of construction, and physical condition in detailed notes and digital photographs.

# 5 Results

As a result of the background research and field survey, one property containing historic-period built environment features – the Garvey Reservoir property - was identified. The property was recorded on California Department of Parks and Recreation 523 Series forms (DPR forms) and evaluated for listing in the NRHP and the CRHR. DPR forms for the property can be found in Appendix C of this report and are summarized in the following sections.

## 5.1 Garvey Reservoir Property

### Physical Description

The subject property is a roughly 142-acre, irregularly-shaped property developed with Garvey Reservoir and a variety of appurtenant structures and features. The property is surrounded by chain link fencing and includes mature landscaping throughout. Its various structures and features include the following, which are further detailed in the following subsections and identified in Figure 2 in Section 1.2, *Project Description*.

- Garvey Reservoir and I/O tower
- Developed area southeast of reservoir (including Junction Structure, Administration Building/ Water Quality Laboratory, standby generator enclosure, and Sodium Hypochlorite Tank Farm)
- Communications site (including three towers, one permanent building, and several temporary, modular buildings)
- Surge tank
- Construction trailer staging area
- Construction staging area

#### *Reservoir and I/O Tower*

Original to the property's development, the open, concrete-lined Garvey Reservoir (Figure 3Figure 3, Photograph 1) is sited centrally within the subject property on top of a hill surrounded by concrete v-ditches and earthen embankments. It is roughly triangular in shape with rounded corners and is surrounded by a paved access road. In the eastern portion of the reservoir, it features an I/O tower (Figure 3, Photograph 2), which controls the reservoir's water flow by the operation of gates at various elevations. The concrete I/O tower features a circular plan, narrow multi-light steel-framed windows, and a flat roof. The Modern-influenced structure exhibits minimal architectural detailing and is accessible via a metal access bridge that features affixed light fixtures that appear original. It contains a variety of operational equipment (electrical equipment, valves, pumps, etc.) which also appear original to its design.

#### *Developed Area Southeast of Reservoir*

In the southeastern portion of the property is a paved, developed area that includes the Junction Structure, Administration Building/Water Quality Laboratory, standby generator enclosure, and Sodium Hypochlorite Tank Farm, each of which is described individually below.

### JUNCTION STRUCTURE

Original to the property's development and located adjacent to South Orange Avenue, the utilitarian, partially-subterranean Junction Structure (Figure 3, Photograph 3) contains a variety of valves and other equipment essential to the property's water distribution function. The above-grade portion of the structure features a rectangular footprint, concrete walls with narrow metal-framed hopper windows, and a flat roof. It contains the structure's pedestrian entry, which consists of a single metal door, on the north elevation. The Modern-influenced structure features minimal architectural detailing limited to simple incising on exterior walls. On the interior, the above grade portion of the structure contains a stairway that leads to a below grade area where valves and associated equipment are housed.

### ADMINISTRATION BUILDING/WATER QUALITY LABORATORY

Located approximately 50 feet west of the Junction Structure is a single-story building that functions as the property's Administration Building and Water Quality Laboratory (Figure 3, Photograph 4). This building was originally the reservoir's chlorination building and does not embody a particular architectural style. Administrative functions are housed in the eastern portion of the building, and the Water Quality Laboratory is located in the western portion. Indicative of their construction at separate times, the Administration Building (circa 1952) and Water Quality Laboratory (circa 1976) portions of the building vary in height. The utilitarian, roughly T-planned building is constructed of concrete block and features a flat roof. An abundance of window and door types are featured. Window units vary throughout and include metal-framed casement and hopper windows, which appear original, and aluminum sliders, which appear to be replacements. Wood and metal doors are both present. The building's north elevation features a former bay door opening that has been enclosed to contain a single door and window surrounded with wood siding.

To the west of the Administration Building/Water Quality Laboratory is a simple structure formerly used to contain hazardous materials ("former caustic soda structure"; Figure 4, Photograph 1). The square-planned structure is a few feet in height and is unroofed. It is constructed of concrete block and features a large, concrete-formed circular-planned pit at center.

### STANDBY GENERATOR ENCLOSURE

Added to the property in 1974, the property's standby generator enclosure (historically known as the emergency generator building; Figure 4**Error! Reference source not found.**, Photograph 2) is located approximately 30 feet west of the Administration Building/Water Quality Laboratory. The small utilitarian building, which houses the property's backup generator, is consistent in design with the Administration Building/Water Quality Laboratory as previously described and does not embody a particular architectural style. The rectangular planned building is constructed of concrete block and features a flat roof. It is largely void of fenestration but is lined with slotted doors on the east elevation. Immediately to the north of this standby generator enclosure is an open-air structure that consists of a concrete slab sheltered by a metal framed and clad roof and contains a large fuel tank.

**Figure 3 Site Photographs of Reservoir, I/O Tower, Junction Structure, and Adminstration Building/Water Quality Laboratory**

**Photograph 1.** Garvey Reservoir

**Photograph 2.** I/O Tower

**Photograph 3.** Junction Structure

**Photograph 4.** Administration Building and Water Quality Laboratory

**Figure 4 Site Photographs of Former Caustic Soda Structure, Backup Generator Enclosure, Sodium Hypoclorite Tank Farm, and Construction Staging Area**

**Photograph 1.** Former Caustic Soda Structure

**Photograph 2.** Backup Generator Enclosure

**Photograph 3.** Sodium Hypochlorite Tank Farm

**Photograph 4.** Construction Staging Area

#### SODIUM HYPOCHLORITE TANK FARM

Constructed between 1996 and 1998 and located approximately 40 feet north of the Administration Building/Water Quality Laboratory is the property's Sodium Hypochlorite Tank Farm (Figure 4, Photograph 3). The tank farm structure is partially open air. It consists of a concrete slab on which a variety of equipment is mounted. The walls are steel-framed; the top half of walls are clad with metal panels while the bottom portions are open-air and surrounded with simple metal pipe railings. Similarly, a large portion of the structure is unroofed on its eastern side. Awnings extend from the building to shelter electrical equipment.

### *Staging Areas*

There are two staging areas located adjacent to the reservoir, a construction staging area at the north (Figure 4**Error! Reference source not found.**, Photograph 4) and a construction trailer staging area at the south (Figure 5, Photograph 1). The construction staging area features hard-packed gravel ground and does not include any built environment features. The construction trailer staging area is accessible via a paved drive and includes a paved area within which a temporary structure (double-wide construction trailer and associated shade structure) is sited. Surrounding the construction trailer staging area is a grassy, artificially-flattened area that is partially surrounded with concrete retaining walls and a variety of mature plantings. This area was formerly developed with three small residences that were demolished between July 2008 and June 2009 (Google Earth 2021). Two sets of concrete steps and associated light standards remain.

### *Surge Tank*

The 1,000-gallon, metal surge tank is sited on a concrete slab approximately 60 feet southeast of the reservoir (Figure 5, Photograph 2). Several metal pipes extend from the prefabricated tank in various directions into the ground as well as into adjacent associated features such as pumps and a pressure switch. Adjacent to the tank is a temporary metal storage container that contains emergency response equipment.

### *Communications Site*

Located approximately 550 feet east of the surge tank is a paved area that functions as a communications site. The site includes three steel towers of various form and height on which a variety of antennas and dishes are mounted (Figure 5, Photograph 3). Two utilitarian modular buildings and one concrete constructed building that house communications equipment surround the towers (Figure 5, Photograph 4), which were constructed between 1956 and 1960. Also located in this area are various associated equipment such as oil/gas tanks and a large generator.

## Property History and Construction Chronology

A review of historical aerial images reveals that, although the surrounding region was largely developed with residential suburbs by the early 1950s, the hilly are area immediately surrounding and comprising the subject property remained undeveloped as of early 1952 (NETR Online, Inc. var.). The subject property is situated within what was historically Garvey Ranch, a property associated with Monterey Park's early development. In 1950, Garvey Ranch was sold to the Inglewood Park Cemetery Association for development of a cemetery (Metropolitan 1954). However, the association could not secure a zoning variance to use the land for a cemetery, and the City eventually turned to other land use alternatives for the property. In 1950, the property was sold

**Figure 5 Site Photographs of Construction Trailer Staging Area, Surge Tank, and Communications Site**

**Photograph 1.** Construction Trailer Staging Area

**Photograph 2.** Surge Tank

**Photograph 3.** Communications Site

**Photograph 4.** Building at Communications Site

to Metropolitan for $72,900 and developed into Garvey Reservoir as part of its ongoing expansion of the CRA under general manager and chief engineer, Robert B. Diemer and assistant chief engineer, R.A. Skinner (Metropolitan 1954).

As described in Metropolitan's *Historical Record Garvey Reservoir,* the purpose of Garvey Reservoir was to "provide storage of the off-peak flow to meet the peak demand of the areas served by the Middle Feeder and the cross connections to the Palos Verdes and Lower Feeder systems." Garvey Reservoir would "furnish a two-day supply to the eastern and southern portions of Los Angeles County as well as supplement the supply in the Orange County reservoir and serve the constituents in Orange County" (Metropolitan 1954).

Bids for construction of the reservoir began September 8, 1952, and a joint venture between Morrison-Knudsen Co., Inc. and R.A. Westbrook (referred to jointly in historical documents as Morrison-Knudsen Co., Inc. and R.A. Westbrook) won the bid at $3,143,694.50 (Metropolitan 1954). Morrison-Knudsen Co. was founded in 1912 and went on to contribute to several notable infrastructure projects in the United States throughout the 20th century; including the New York Canal, the Hoover Dam, the San Francisco Bay Bridge, and Penn Station, among others (MK Foundation 2021). The research conducted for this study failed to identify consequential information related to R.A. Westbrook. At the time of Garvey Reservoir's construction, Morrison-Knudsen Co. and R.A Westbrook's president and vice president/general manager were H.W. Morrison and J.B. Bonney, respectively; field personnel included R.A. Westbrook, general manager, D. Westbrook, superintendent, and D. Hoyt, foreman. In addition to Morrison-Knudsen Co., Inc. and R.A. Westbrook, Garvey Reservoir was constructed with the assistance of the following subcontractors: United Concrete Pipe Corporation, Southwest Welding and Manufacturing Co., the ABC Construction Co., W.E. Hall Construction Co., Lefever and Bing, Los Angeles Fence Co., Ets. Hockin & Galvin, E.R. Larson & Co., Fontana Steel Co., Pacific Iron and Steel Corp., Hunt Process Co., House of Murphy, Golden State Sandblasting Co., Armco Drainage, and Metal Products, Inc.

Construction of Garvey Reservoir began on October 21, 1952, and was completed on October 11, 1954, a reported six months ahead of schedule. Work at the site included "excavation, rolled fill embankment, asphaltic concrete lining and roads, and the construction of inlet and outlet pipes, outlet tower, pipe gallery, feeder pipelines, control structure, venturi meter structures, spillway, drains, steel footbridge, roads, fences, electrical facilities and appurtenant works" (Metropolitan 1954). An aerial image of the property dated 1956 depicts the reservoir in its initial development (Figure 6). In that image, the reservoir and I/O tower and surrounding concrete v-ditches and earthen embankments appear generally consistent with the property's current conditions. At that time, there were three caretaker residences, which were demolished circa 2008, located south of the reservoir in the current construction trailer staging area. Also visible in the 1956 aerial photograph is the developed area southeast of the reservoir; at that time, the Junction Structure and current Water Quality Laboratory (originally a chlorination building with small integrated Water Quality Laboratory) appear extant. Also extant at that time are what appear to be two small buildings located north of the Junction Structure and current Water Quality Laboratory, which no longer remain.

A review of historical aerial images and archival documents provided by Metropolitan provides the construction chronology for the property outlined in Table 1.

**Figure 6 Garvey Reservoir in 1964**

**Table 1 Construction Chronology**

| Dates | Notable Events |
|---|---|
| 1952-1954 | Reservoir, I/O tower, current Water Quality Laboratory (original chlorination building/Water Quality Laboratory), and Junction Structure are constructed. Several buildings no longer extant (at least three small buildings used as caretakers' residences and what appear to be two buildings in developed area southeast of reservoir) are also constructed. |
| 1956-1960 | Utilitarian concrete building located within the current communication tower site is constructed. |
| 1960s-1970s | Additions/Alterations to the chemical feed and electrical system and distribution system resulting from an effort to implement centralized controls are made (Metropolitan 2021). |
| 1974 | Standby generator enclosure (currently referred to as the backup generator enclosure) is constructed. |
| 1976 | Current Administration Building is added to existing chlorination building/Water Quality Laboratory. |
| 1983 | Floating reservoir cover is installed (Metropolitan 2021). |
| Post 1976 | Communications site is further developed with towers and modular buildings; developed area southeast of reservoir is further developed with additional buildings. Sodium Hypochlorite Tank Farm is constructed between 1996 and 1998. |
| 1989-1999 | Cracks in reservoir bottom are repaired. Reservoir bottom liner, geo-textile cushion, automatic sensing and remote recording piezometers, new floating cover, and polypropylene liner on top of the drainage layer are installed. Leak detection and monitoring system is upgraded, and reservoir is connected to seepage alarm (Metropolitan 2021). |

| Dates | Notable Events |
|---|---|
| 1999 | Reservoir liner is replaced with a multi-layer Hypalon. Extensive seismic and seepage monitoring system is installed. |
| 2008-2009 | Former caretakers' residences are demolished. |

## Historical Evaluation

As detailed in the subsequent discussion, the subject property is recommended ineligible for listing in the NRHP and CRHR under any significance criteria (A/1, B/2, C/3, D/4).

Water conveyance-related properties are generally eligible under NRHP Criterion A/CRHR Criterion 1 if they are associated with specific important events (e.g., first long-distance transmission of hydroelectric power) or an important pattern of events (e.g., development of irrigated farming) (JRP Historical Consulting Services and California Department of Transportation 2000). Archival research indicates that Garvey Reservoir is one of several reservoirs constructed as part of Metropolitan's post-World War II expansion of the CRA system to service the rapidly expanding needs of the Los Angeles region. The research conducted for this study did not indicate that Garvey Reservoir is particularly unique or significant within this context; rather, it is an anticipated response to post-World War II growth, similar to many other infrastructural elements in the region. It does not appear to be significant within the context of water conveyance systems or any other event or pattern of events in the history of the county, region, state, or nation. Therefore, the Garvey Reservoir property is recommended ineligible for listing in the NRHP or CRHR under Criterion A/1.

Archival research identified many individuals historically associated with the Garvey Reservoir property, several of whom are listed in the *Property History and Construction Chronology* section above. Because the property has been in operation for 67 years, it is associated with a wide variety of individuals, including those who designed, constructed, and worked at it over the decades. The research conducted for this study did not identify persons associated with the property who are individually significant within a historic context and/or whose association with the property would be exemplary of that individual's productive life. Therefore, the Garvey Reservoir property is recommended ineligible for listing in the NRHP or CRHR under Criterion B/2.

Water conveyance features are generally found eligible under NRHP Criterion C/CRHR Criterion 3 when they are the earliest, sole surviving, largest, or best-preserved example of a particular type of water conveyance system or a property that introduced a design innovation or evolutionary trend in engineering (JRP Historical Consulting Services and California Department of Transportation 2000). The engineering and construction of Garvey Reservoir and its appurtenant features is consistent with other reservoirs throughout the Metropolitan system, many of which remain, and is a relatively late example. Additionally, Garvey Reservoir is of common design, and this study identified no evidence suggesting that this reservoir and its associated features represented any particular engineering achievement at the time of their construction. The facility's other built environment features (e.g., I/O tower, Junction Structure, Administration Building/Water Quality Laboratory) likewise exhibit little architectural distinction. While some of the buildings appear Modern-influenced, none are excellent examples of the style, of which many exist in the region. While the designers of all of the property's features were not in all cases identified, there is nothing apparent in the design of these features to suggest they would be considered an exemplary work of any master. For the reasons summarized above, the Garvey Reservoir property does not embody the distinctive characteristics of a type, period or method of construction, represent the work of a

master, or possess high artistic values. Therefore, the property is recommended ineligible for listing in the NRHP and CRHR under Criterion C/ 3.

Lastly, the research conducted as part of this evaluation identified no information suggesting the Garvey Reservoir has the potential to yield important information in prehistory or history (Criterion D/4).

# 6 Findings and Conclusions

A search of the CHRIS did not identify the presence of prehistoric resources on the property or within a 0.25-mile buffer. The search identified one historic-period transmission tower that was previously recorded, evaluated, and recommended ineligible for historic designation within the 0.25-mile buffer but outside the Garvey Reservoir property. The SLF search conducted for this study returned positive results. However, positive SLF search results alone do not necessarily indicate the presence of tribal heritage resources in the immediate vicinity of Garvey Reservoir. The archaeological survey conducted for this study was negative for archaeological resources.

The background research and survey conducted for this study confirmed the Garvey Reservoir property includes several built environment features at least 45 years of age. As a result of the current study, the subject property is recommended ineligible for listing in the NRHP and the CRHR and is therefore not considered a historical resource pursuant to Section 15064.5(a) of the CEQA Guidelines.

Based on the findings of the current investigation as summarized above, the potential for impacts to historical or archaeological resources under CEQA is **low.**

Although no known archaeological deposits are expected to be present within the project site, unanticipated discoveries during construction remain a possibility. As standard best management practices, Rincon recommends implementation of the following measures in the unlikely event of an unanticipated discovery during project construction.

## 6.1 Unanticipated Discovery of Cultural Resources

In the unlikely event cultural resources are encountered during ground-disturbing activities, work in the immediate area should halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be eligible for listing in the NRHP or the CRHR, additional work such as data recovery excavation and Native American consultation to treat the find may be warranted.

## 6.2 Unanticipated Discovery of Human Remains

If human remains are unexpectedly encountered, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the unlikely event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

# 7 References

AECOM

2015 *Draft Environmental Impact Report for the Robert B. Diemer Water Treatment Plant Upgrades Project.* Prepared for the Metropolitan Water District of Southern California. May.

Arnold, Jeanne E., Michael R. Walsh, and Sandra E. Hollimon

2004 *The Archaeology of California*. Journal of Archaeological Research 12(1).

Bean, Walton

1968 *California: An Interpretive History.* McGraw-Hill Book Company, New York.

Bean, Lowell John, and Charles R. Smith

1978 *Gabrielino.* In *California*, edited by Robert F. Heizer, pp. 538-549. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Blackburn, Thomas

1963 Ethnohistoric Descriptions of Gabrielino Material Culture. Annual Report, Archaeological Survey. University of California, Los Angeles.

Byrd, Brian F., and L. Mark Raab

2007 *Prehistory of the Southern Bight: Models for a New Millennium in California Prehistory*. T.L. Jones and K.A. Klar, eds. Pages 215-228. New York, New York: Altamira Press.

California Office of Historic Preservation

2002 *Technical Assistance Series #3 California Register of Historical Resources: Questions and Answers.* Accessed online at: https://ohp.parks.ca.gov/pages/1069/files/03%20cal_%20reg_%20q_and_a.pdf. October 2021.

City of Monterey Park

n.d. "History of Monterey Park." Accessed online at https://www.montereypark.ca.gov/721/History-of-Monterey-Park. October 21, 2021.

Couch, Jeffery S., Joanne s. Couch, and Nancy Anastasia Wiley

2009 "Saved by the Well: The Keystone Cache at CA-ORA-83, The Cogged Stone Site".

Dillon, Brian D.

2002 California Paleo-Indians: Lack of Evidence, or Evidence of a Lack? In *Essays in California Archaeology: A Memorial to Franklin Fenenga. W. J. Wallace and F. A. Riddell*, eds. Pp. 110–128. Paper number 60. Berkeley, California: Contributions of the University of California Archaeological Research Facility.

Dumke, Glenn S.

1944 *The Boom of the Eighties in Southern California.* Sixth printing, 1991. San Marino, California: Huntington Library Publications. Erlandson, Jon M.

1991 Early Maritime Adaptations on the Northern Channel Islands in Hunter-Gatherers of Early Holocene Coastal California. Volume 1: Perspectives in California Archaeology. J. M. Erlandson and R. Colten, eds. Pp. 101-111. Los Angeles, California: Costen Institute of Archaeology Press.

Eberhart, Hal

1961 The Cogged Stones of Southern California. American Antiquity, Vol. 26, No. 2: 361-370.

Erlandson, Jon M.

1991 Early Maritime Adaptations on the Northern Channel Islands *in* Hunter-Gatherers of Early Holocene Coastal California. Volume 1: Perspectives in California Archaeology. Jon M. Erlandson and R. Colten, eds. Pp. 101-111. Los Angeles, California: UCLA Institute of Archaeology Press.

Erlandson, Jon M., Theodore Cooley, and Richard Carrico

1987 A Fluted Projectile Point Fragment from the Southern California Coast: Chronology and Context at CA-SBA-1951. Journal of California and Great Basin Anthropology 9:120–128.

Google Earth

2021 Archived aerial images of the project site. Accessed at https://earth.google.com/web/ throughout October 2021.

Glassow, Michael A, L. Wilcoxen, and J. M. Erlandson

1988 Cultural and Environmental Change during the Early Period of Santa Barbara Channel Prehistory in The Archaeology of Prehistoric Coastlines. G. Bailey and J. Parkington, eds. Pp. 64–77. Cambridge, England: Cambridge University Press.

Gruen, Phillip J.

1998 Colorado River Reporting Project. Accessed online at http://npshistory.com/publications/habs-haer-hals/haer-ca-226.pdf. October 26, 2021

Guinn, J.M.

1976 Gold! Gold! Gold! From San Francisquito! In Los Angeles Biography of a City. John Caughey and LaRee Caughey, eds. Berkeley: University of California, Berkeley Press.

Harrington, John P.

1942 Cultural Element Distributions: XIX Central California Coast. University of California Anthropological Records 7(1):1-46.

Johnson, J.R., T.W. Stafford, Jr., H.O. Ajie, and D.P. Morris.

2002 Arlington Springs Revisited in Proceedings of the Fifth California Islands Symposium. D. Browne, K. Mitchell, and H. Chaney, eds. Pp. 541–545. Santa Barbara, California: USDI Minerals Management Service and the Santa Barbara Museum of Natural History.

Jones, Terry L.

1996 Mortars, Pestles, and Division of Labor in Prehistoric California: A View from Big Sur. American Antiquity 61(2):243-264.

Jones, Terry L., Richard T. Fitzgerald, Douglas J. Kennett, Charles Miksicek, John L. Fagan, John Sharp, and Jon M. Erlandson

2002 The Cross Creek Site and Its Implications for New World Colonization. American Antiquity 67:213–230.

Jones, Terry L. and Kathryn A. Klar

2005 Diffusionism Reconsidered: Linguistic and Archaeological Evidence for Prehistoric Polynesian Contact with Southern California. American Antiquity 70(3):457-484.

JRP Historical Consulting Services and California Department of Transportation

2000 Water Conveyance Systems in California, Historic Context Development and Evaluation Procedures. December.

King, Chester

1994 Native American Placenames in the Santa Monica Mountains National Recreational Area, Agoura Hills. Topanga Anthropological Consultants, California.

Koerper, Henry C. and Christopher E. Drover

1983 Chronology Building for Coastal Orange County: The Case from CA-ORA-119-A. Pacific Coast Archaeological Society Quarterly 19(2):1–34.

Koerper, Henry C., Roger D. Mason, and Mark L. Peterson

2002 Complexity, Demography, and Change in Late Holocene Orange County in Catalysts to Complexity: Late Holocene Societies of the California Coast. Volume 6: Perspectives in California Archaeology. Jon M. Erlandson and Terry L. Jones, eds. Pages 63–81. Los Angeles, California: Costen Institute of Archaeology Press.

Kowta, Makoto

1969 The Sayles Complex, A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of its Scraper Planes. University of California, Berkeley Publications in Anthropology 6:35–69.

Kroeber, Alfred J.

1925 Handbook of the Indians of California. Unabridged reprint 1976. New York, New York: Dover Publications, Inc.

Langenwalter, Paul E., II, Boxt, Mathew A., Boxt, Lawrence M., M.D., and Miller, Theodore T., M.D.

2001 A Sea Otter (Enhydra lutris) Femur with Embedded Projectile Point Fragment from a Late Prehistoric Camp Site in Long Beach, California. Pacific Coast Archaeological Society Quarterly 37(1).

*Los Angeles Times*

1953 “Southland Speeds Projects to Boost Flow of Colorado.” Accessed online at Newspapers.com on October 26, 2021.

1995 "At one time, Monterey Park was to…" Accessed online at https://www.latimes.com/archives/la-xpm-1995-11-28-me-7861-story.html. October 21, 2021.

MK Foundation

2021 "Our History." Accessed online at: https://mk-foundation.org/our-history/. October 2021.

Mason, Roger D., and Mark L. Peterson

1994 Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion, Volume 1, Part 1 of 2. The Keith Companies. Report on file, South Central Coastal Information Center, California State University, Fullerton.

McCawley, William

1996 The First Angelinos: The Gabrielino Indians of Los Angeles. Malki Museum/Ballena Press Cooperative Publication, Banning or Novato, California.

Metropolitan Water District of Southern California, The (Metropolitan)

2021 Personal communication via email between Annaliese Miller, Environmental Planner, Rincon Consultants, Inc. and Michelle Morrison, Environmental Specialist, Metropolitan. October 4 and 5, 2021.

1954 *Historical Record Garvey Reservoir*. Provided by Metropolitan.

n.d. "Our Story." Accessed online at https://www.mwdh2o.com/who-we-are/our-story/. October 21, 2021.

Mithun, Marianne

2004 The Languages of Native North America. Reprinted. Cambridge University Press, Cambridge, Massachusetts. Originally published 1999, Cambridge University Press, Cambridge, Massachusetts.

Monterey Park, City of

n.d. "History of Monterey Park." Accessed online at: https://www.montereypark.ca.gov/721/History-of-Monterey-Park. October 2021.

Moratto, Michael

1984 California Archaeology. Orlando, Florida: Academic Press, Inc.

National Park Service (NPS)

1995 National Register Bulletin. How to Apply the National Register Criteria for Evaluation. Accessed online at: https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf. October 2021.

1983 Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Accessed online at: https://www.nps.gov/subjects/historicpreservation/standards.htm. October 21, 2021.

NETR Online, Inc.

Var. "Historic Aerials." Via Historicaerials.com [digital photograph database]. Accessed throughout October 2021. Available at: https://www.historicaerials.com/viewer.

Nevin, David

1978 The Mexican War. Alexandria, Virginia: Time-Life Books, Inc.

O'Neil, Stephen

2002 The Acjachemen in the Franciscan Mission System: Demographic Collapse and Social Change. Master's thesis, Department of Anthropology, California State University, Fullerton.

Poole, Jean B.

2002 El Pueblo: The Historic Heart of Los Angeles. Los Angeles, CA: Getty Publications.

Potter, Amiee B., and P. Scott White

2009 *The Mitochondrial DNA Affinities of the Prehistoric People of San Clemente Island: An Analysis of Ancient DNA.* Journal of California and Great Basin Anthropology 29(2): 163-181.

Rawls, James J.

1984 *Indians of California: The Changing Image*. University of Oklahoma Press: Norman.

Reinman, Fred M.

1964 Maritime Adaptations on San Nicolas Island, California. University of California Archaeological Survey Annual Report 1963–1964:47–80.

Rick, Torben C., Jon M. Erlandson, and René Vellanoweth

2001 Paleocoastal Marine Fishing on the Pacific Coast of the Americas: Perspectives from Daisy Cave, California. American Antiquity 66:595–613.

Rolle, Andrew

2003 California: A History. Wheeling, Illinois: Harlan Davidson, Inc.

Shumway, Burgess McK.

2007 California Ranchos: Patented Private Land Grants Listed by County. Rockville, Maryland: Borgo Press.

Sutton, Mark Q.

2008 "The Palomar Tradition and Its Place in the Prehistory of Southern California."

True, Delbert L.

1993 Bedrock Milling Elements as Indicators of Subsistence and Settlement Patterns in Northern San Diego County, California. Pacific Coast Archaeological Society Quarterly 29(2):1–26.

United States Census Bureau

2019 QuickFacts, Monterey Park city, California. Accessed online at https://www.census.gov/quickfacts/fact/table/montereyparkcitycalifornia/PST045219/. October 21, 2021.

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11(3):214-230.

1978 Post-Pleistocene Archaeology, 9000 to 2000 B.C. In *California.* Volume 8: Handbook of North American Indians. Robert F. Heizer, ed. and William C. Sturtevant, general ed. Pp. 25-36. Washington, D.C.: Smithsonian Institution Scholarly Press.

Warren, Claude N.

1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast in Archaic Prehistory in the Western United States. C. Irwin-Williams, ed. Eastern New Mexico University Contributions in Anthropology 1(3):1–14.

Workman, Boyle

1935 The City that Grew. Los Angeles, California: Southland Publication Company.

*This page intentionally left blank.*

# Appendix A

CHRIS Search Results

**South Central Coastal Information Center**
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
*California Historical Resources Information System*
*Orange, Los Angeles, and Ventura Counties*

---

11/29/2021 Records Search File No.: 22910.9071

Rachel Perzel
Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura CA 93003

Re: Records Search Results for the Garvey Reservoir Rehabilitation Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the El Monte, CA USGS 7.5' quadrangle. Due to the COVID-19 emergency, we have temporarily implemented new records search protocols. With the exception of some reports that have not yet been scanned, we are operationally digital for Los Angeles, Orange, and Ventura Counties. See attached document for your reference on what data is available in this format. The following reflects the results of the records search for the project area and a ¼-mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ shape files ☐ hand drawn maps

| | |
|---|---|
| Resources within project area: 0 | None |
| Resources within ¼-mile radius: 1 | SEE ATTACHED LIST |
| Reports within project area: 0 | None |
| Reports within ¼-mile radius: 1 | SEE ATTACHED LIST |

| | | | |
|---|---|---|---|
| **Resource Database Printout (list):** | ☒ enclosed | ☐ not requested | ☐ nothing listed |
| **Resource Database Printout (details):** | ☐ enclosed | ☒ not requested | ☐ nothing listed |
| **Resource Digital Database (spreadsheet):** | ☐ enclosed | ☒ not requested | ☐ nothing listed |
| **Report Database Printout (list):** | ☒ enclosed | ☐ not requested | ☐ nothing listed |
| **Report Database Printout (details):** | ☐ enclosed | ☒ not requested | ☐ nothing listed |
| **Report Digital Database (spreadsheet):** | ☐ enclosed | ☒ not requested | ☐ nothing listed |
| **Resource Record Copies:** | ☒ enclosed | ☐ not requested | ☐ nothing listed |
| **Report Copies:** | ☐ enclosed | ☐ not requested | ☒ nothing listed |
| **OHP Built Environment Resources Directory (BERD) 2019:** | ☒ available online; please go to https://ohp.parks.ca.gov/?page_id=30338 | | |
| **Archaeo Determinations of Eligibility 2012:** | ☐ enclosed | ☒ not requested | ☐ nothing listed |
| **Los Angeles Historic-Cultural Monuments** | ☐ enclosed | ☒ not requested | ☐ nothing listed |

**Historical Maps:** ☐ enclosed ☒ not requested ☐ nothing listed
**Ethnographic Information:** ☒ not available at SCCIC
**Historical Literature:** ☒ not available at SCCIC
**GLO and/or Rancho Plat Maps:** ☒ not available at SCCIC
**Caltrans Bridge Survey:** ☒ not available at SCCIC; please go to http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
**Shipwreck Inventory:** ☒ not available at SCCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
**Soil Survey Maps: (see below)** ☒ not available at SCCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz
Assistant Coordinator

Enclosures:

(X) Emergency Protocols for LA, Orange, and Ventura County BULK Processing Standards – 2 pages

(X) GIS Shapefiles – 2 shapes

(X) Resource Database Printout (list) – 1 page

(X) Report Database Printout (list) – 1 page

(X) Resource Record Copies – (all) – 10 pages

(X) Invoice # 22910.9071

# Emergency Protocols for LA, Orange, and Ventura County BULK or SINGLE PROJECT Records Searches IF YOU HAVE A GIS PERSON ON STAFF ONLY!!

**These instructions are for qualified consultants with a valid Access and Use Agreement.**
**WE ARE ONLY PROVIDING DATA THAT IS ALREADY DIGITAL AT THIS TIME.**

Some of you have a fully digital operation and have GIS staff on board who can process a fully digital deliverable from the Information Center. IF you can accept shape file data and do not require a custom map made for you by the SCCIC, and you are willing to sort the data we provide to you then these instructions are for you. Read further to be sure. You may have only one project at this time or some of you have a lot of different search locations that can be processed all at once. This may save you a lot of time getting results back and if we process your jobs in bulk, and you may enjoy significant cost savings as well.

Bulk processing will work for you if you have a GIS person on staff who can sort bulk data for you and make you any necessary project maps. This type of job can have as many job locations as you want but the point is that we will do them in bulk – at the same time - not one at a time. We send all the bulk data back to you and you sort it. This will work if you need searches in LA, Orange, or Ventura AND if they all have the same search radius and if all the other search criteria is the same– no exceptions. This will not work for San Bernardino County because we are not fully digital for San Bernardino County. You must submit all your shape files for each location at the same time and this will count as one search. If you have some that need a different radius, or different search criteria, then you should submit that job separately with its own set of instructions.

## INSTRUCTIONS FOR BULK PROCESSING:

Please send in your requests via email using the data request form along with the associated shape files and pdf maps of the project area(s) at 1-24k scale. PDFs must be able to be printed out on 8.5X 11 paper. We check your shape file data against the pdf maps. This is where we find discrepancies between your shape files and your maps. This is required.

Please use this data request form and make sure you fill it out properly.
http://web.sonoma.edu/nwic/docs/CHRISDataRequestForm.pdf

## DELIVERABLES:

1. A copy of the Built Environment Resources Directory or BERD for Los Angeles, Orange, Ventura, or San Bernardino County can now be found at the OHP Website for you to do your own research. This replaces the old Historic Properties Directory or HPD. We will not be searching this for you at this time but you can search it while you are waiting for our results to save time.

2. You will only get shapefiles back, which means that you will have to make your own maps for each project location.

3. You will get a bulk processed bibliographies for resources and reports as selected; you will not get individual bibliographies for each project location.

4. You will get pdfs of resources and reports if you request them, provided that they are in digital formats. We will not be scanning records or reports at this time.

5. You will get one invoice for the bulk data processing. We can't bill this as individual jobs on separate invoices for you. If there are multiple project names, we are willing to reference all the job names on the invoice if needed. If there a lot of job id's we may ask you to send them in an email so that we can copy and paste it into the invoice details. If you need to bill your clients for the data, you can refer to our fee schedule on the OHP website under the CHRIS tab and apply the fees accordingly.

6. We will be billing you at the staff rate of $150 per hour and you will be charged for all resources and report locations according to the "custom map charges". This is in lieu of the $12 per GIS shape file data fee that we normally charge for GIS files and this will only apply during the Covid 19 emergency. You will also be billed 0.15 per pdf page, or 0.25 per excel line as is usual.

7. Your packet will be mailed to you on a CD or via Dropbox if you have an account. We use 7-zip to password protect the files so you will need both. We email you the password.

I may not have been able to cover every possible contingency in this set of instructions and will update it if necessary. You can email me with questions at sccic@fullerton.edu

Thank you,

Stacy St. James

South Central Coastal Information Center

Los Angeles, Orange, Ventura, and San Bernardino Counties

## Resource List

| Primary No. | Trinomial | Other IDs | Type | Age | Attribute codes | Recorded by | Reports |
|---|---|---|---|---|---|---|---|
| P-19-190175 | | Resource Name - SCE Transmission Tower M-0 T-5 Mesa-Newmark No. 2 | Structure | Historic | HP11 | 2012 (Dana E. Supernowicz, Historic Resource Associates) | LA-12040 |

# Report List

| Report No. | Other IDs | Year | Author(s) | Title | Affiliation | Resources |
|---|---|---|---|---|---|---|
| LA-12040 | | 2012 | Supernowicz, Dana | Architectural Evaluation Study of the SCE-Mesa Newark M0-T5 Project, MetroPCS California, LLC Site No. MLAX0416, 1853 Mancha Way, Monterey Park, Los Angeles County, California | Historic Resource Associates | 19-190175 |

# Appendix B

Sacred Lands File Results

# NATIVE AMERICAN HERITAGE COMMISSION



**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

October 26, 2021

Rachel Perzel
Rincon Consultants, Inc.

Via Email to: rperzel@rinconconsultants.com

**Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Garvey Reservoir Rehabilitation Project, Los Angeles County**

Dear Ms. Perzel:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Gabrieleno Band of Mission Indians – Kizh Nation on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

# Appendix C

California DPR 523 Series Forms

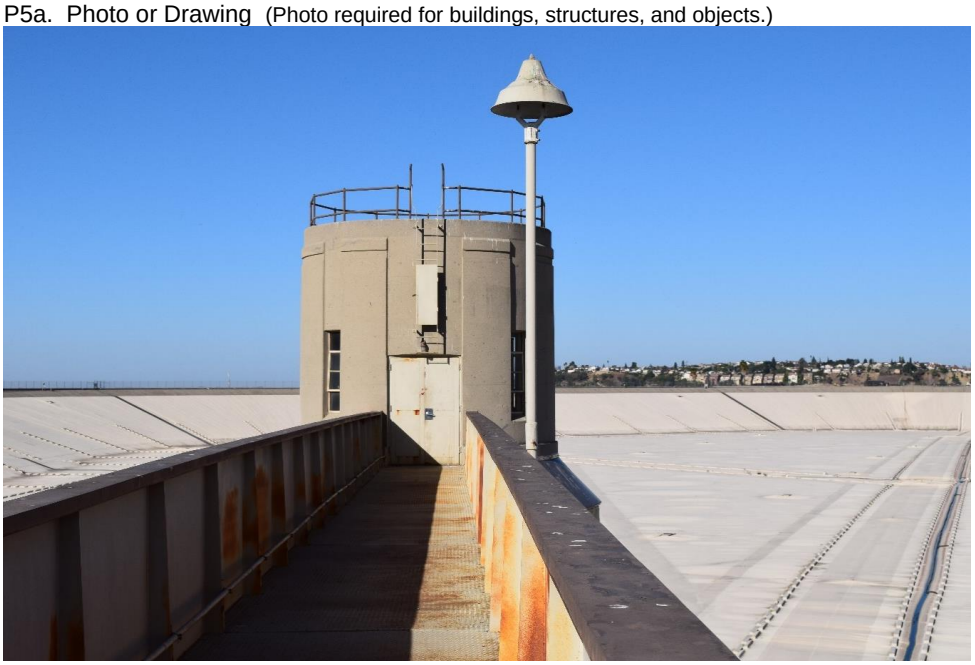
**P1. Other Identifier:** Garvey Reservoir
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Los Angeles
**and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** *El Monte* **Date:** 1966 **T:** 01.0S; **R:** 12.0W; **¼ of ¼ of Sec:** 26, 27, 34, 35 ; S.B. **B.M.**
c. Address: 1061 South Orange Avenue City: Monterey Park Zip: 91755
d. UTM: Zone: ; mE/ mN (G.P.S.)
e. Other Locational Data: Los Angeles County Assessor's Parcel Numbers 5260-013-910 and 5260-013-905 Elevation:

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Located at 1061 South Orange Avenue in Monterey Park, Los Angeles County, the subject property is a roughly 142-acre, irregularly shaped property developed with Garvey Reservoir and a variety of appurtenant structures and features owned and operated by The Metropolitan Water District of Southern California (Metropolitan). The property is surrounded by chain link fencing and includes mature landscaping throughout the site. Its various structures and features include the following, which are further detailed on Continuation Sheet, page 4: Garvey Reservoir and the Inlet/Outlet (I/O) tower, developed area southeast of reservoir (including Junction Structure, Administration Building/Water Quality Laboratory, standby generator enclosure, and Sodium Hypochlorite Tank Farm,) communications site, (including three towers, one permanent building, and several temporary modular buildings), surge tank, construction trailer staging area, and construction staging area. (See Continuation Sheet, page 4.)

***P3b. Resource Attributes:** HP22: Reservoir
***P4. Resources Present:** ■Building ■Structure ☐Object ☐Site ■District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



(See Continuation Sheet, pages 7 and 8)

P5b. Description of Photo: (View, date, accession #)
Inlet/Outlet tower, west-facing; photo taken October 12, 2021. (See Continuation Sheet, pages 7 and 8.)

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both
1954 (Metropolitan 1954)

***P7. Owner and Address:**
The Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, California 90012

***P8. Recorded by:** (Name, affiliation, and address)
Rachel Perzel and Andrew Rodriguez
Rincon Consultants, Inc.
180 North Ashwood Avenue
Ventura, CA 93003

***P9. Date Recorded:**
October 12, 2021

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
*Perzel, Rachel, Andrew Rodriquez, Kyle Montgomery, Steven Treffers, Ken Victorino, and Shannon Carmack. 2021. Garvey Reservoir Rehabilitation Project Cultural Resources Assessment. Rincon Consultants, Inc. Project No. 20-09668. Report on file at the South Central Coastal Information Center, California State University, Fullerton.*

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

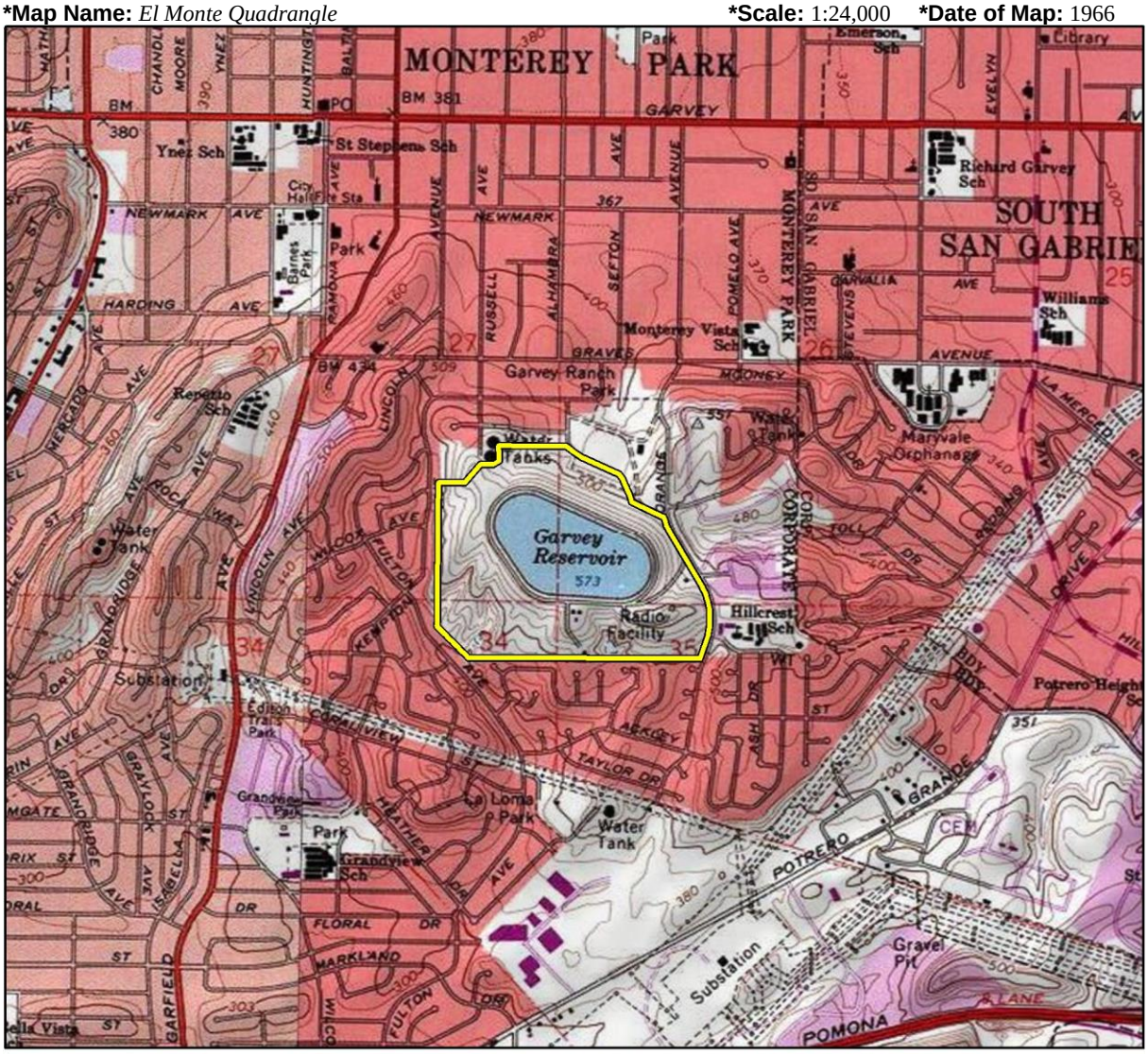
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# LOCATION MAP

Primary #
HRI#
Trinomial

 ***Resource Name or #:** 1061 South Orange Avenue

***Map Name:** *El Monte Quadrangle* ***Scale:** 1:24,000 ***Date of Map:** 1966

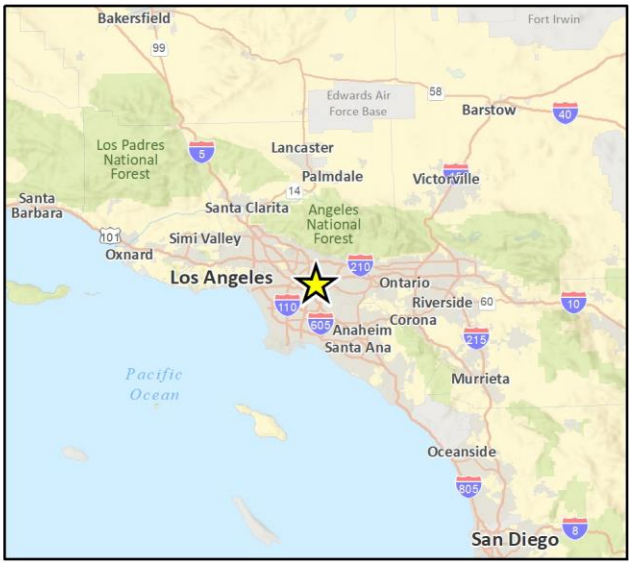



*Basemap provided by National Geographic Society, Esri and their licensors © 2021. El Monte Quadrangle. T01.0S R12.0W S26, 27,34, 35. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.*

Project Location

0 1,000 2,000 Feet

N




CRFig 1 Proj Locn Map

**DPR 523J (1/95)**

***Required information**

B1. Historic Name: Garvey Reservoir
B2. Common Name: Garvey Reservoir
B3. Original Use: Water Reservoir B4. Present Use: Water Reservoir
***B5. Architectural Style:** Modern influenced; does not embody a style
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Garvey Reservoir was constructed in 1954. Its construction history and alterations are noted on Continuation Sheet, page 5.
***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** N/A
B9a. Architect: Unknown b. Builder: Morrison-Knudsen Co., Inc. and R.A. Westbrook
***B10. Significance:** N/A **Theme:** N/A **Area:** N/A
**Period of Significance:** N/A **Property Type:** N/A **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

## Property History and Construction Chronology

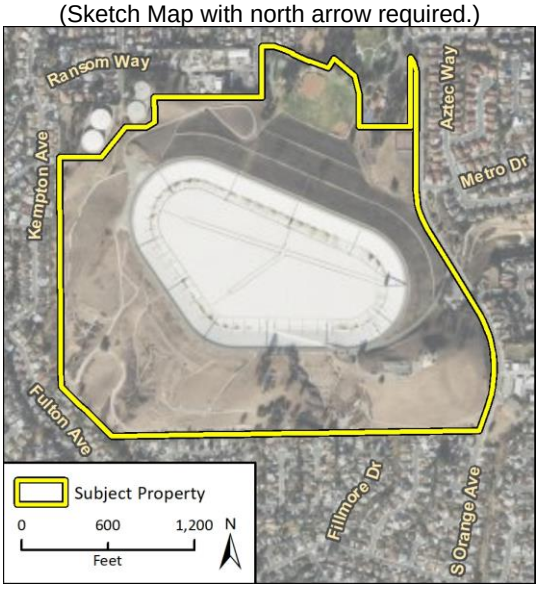
A review of historical aerial images reveals that the hilly are area immediately surrounding and comprising the subject property remained undeveloped as of early 1952, although the surrounding region was largely developed with residential suburbs by the early 1950s (NETR Online, Inc. var.). The subject property is situated within what was historically Garvey Ranch, a property associated with Monterey Park's early development. In 1950, Garvey Ranch was sold to the Inglewood Park Cemetery Association for development of a cemetery (Metropolitan 1954). However, the association could not secure a zoning variance to use the land for a cemetery, and the City of Monterey Park eventually turned to other land use alternatives for the property. In 1950, the property was sold to Metropolitan for $72,900 and developed into Garvey Reservoir as part of Metropolitan's ongoing expansion of the Colorado River Aqueduct under general manager and chief engineer, Robert B. Diemer and assistant chief engineer, R.A. Skinner (Metropolitan 1954).

As described in Metropolitan's *Historical Record Garvey Reservoir*, the purpose of Garvey Reservoir was to "provide storage of the off-peak flow to meet the peak demand of the areas served by the Middle Feeder and the cross connections to the Palos Verdes and Lower Feeder systems." Garvey Reservoir would "furnish a two-day supply to the eastern and southern portions of Los Angeles County as well as supplement the supply in the Orange County reservoir and serve the constituents in Orange County" (Metropolitan 1954).

Bids for construction of the reservoir began September 8, 1952, and a joint venture between Morrison-Knudsen Co., Inc. and R.A. Westbrook (referred to jointly in historical documents as Morrison-Knudsen Co., Inc. and R.A. Westbrook) won the bid at $3,143,694.50 (Metropolitan 1954). Morrison-Knudsen Co. was founded in 1912 and went on to contribute to several notable infrastructure projects in the United States throughout the 20th century, including the New York Canal, the Hoover Dam, the San Francisco Bay Bridge, and Penn Station, among others (MK Foundation 2021). The research conducted for this study failed to identify consequential information related to R.A. Westbrook. At the time of Garvey Reservoir's construction, Morrison-Knudsen Co. and R.A Westbrook's president and vice president/general manager were H.W. Morrison and J.B. Bonney, respectively; field personnel included R.A. Westbrook, general manager, D. Westbrook, superintendent, and D. Hoyt, foreman. In addition to Morrison-Knudsen Co., Inc. and R.A. Westbrook, Garvey Reservoir was constructed with the assistance of the following subcontractors: United Concrete Pipe Corporation, Southwest Welding and Manufacturing Co., the ABC Construction Co., W.E. Hall Construction Co., Lefever and Bing, Los Angeles Fence Co., Ets. Hockin & Galvin, E.R. Larson & Co., Fontana Steel Co., Pacific Iron and Steel Corp., Hunt Process Co., House of Murphy, Golden State Sandblasting Co., Armco Drainage, and Metal Products, Inc. (See Continuation Sheet 5)

B11. Additional Resource Attributes: (List attributes and codes): N/A
***B12. References:** See Continuation Sheet 6
B13. Remarks: N/A
***B14. Evaluator:** Rachel Perzel and Andrew Rodriguez, Rincon Consultants, Inc.
***Date of Evaluation:** October 12, 2021

(Sketch Map with north arrow required.)




(This space reserved for official comments.)

***P3a. Description (Continued):**

## Reservoir and I/O Tower:

Original to the property's development, the open, concrete-lined Garvey Reservoir is situated centrally within the subject property on top of a hill surrounded by concrete v-ditches and earthen embankments. It is roughly triangular in shape with rounded corners and is surrounded by a paved access road. The eastern portion of the reservoir features an I/O tower, which controls the reservoir's water flow by the operation of gates at various elevations. The concrete I/O tower features a circular plan, narrow multi-light steel-framed windows, and a flat roof. The Modern-influenced structure exhibits minimal architectural detailing and is accessible via a metal access bridge that features affixed light fixtures that appear original. It contains a variety of operational equipment (electrical equipment, valves, pumps, etc.) which also appear original to its design.

## Developed Area Southeast of Reservoir:

In the southeastern portion of the property is a paved, developed area that includes the Junction Structure, Administration Building/Water Quality Laboratory, standby generator enclosure, and Sodium Hypochlorite Tank Farm, each of which is described individually below.

### Junction Structure:

Original to the property's development and located adjacent to South Orange Avenue, the utilitarian, partially-subterranean Junction Structure contains a variety of valves and other equipment essential to the property's water distribution function. The above grade portion of the structure features a rectangular footprint, concrete walls with narrow metal-framed hopper windows, and a flat roof. It contains the structure's pedestrian entry, which consists of a single metal door on the north elevation. The Modern-influenced structure features minimal architectural detailing limited to simple incising on exterior walls. On the interior, the above grade portion of the structure contains a stairway that leads to a below grade area where valves and associated equipment are housed.

### Administration Building/Water Quality Laboratory:

Located approximately 50 feet west of the Junction Structure is a single-story building that functions as the property's Administration Building and Water Quality Laboratory. This building does not embody a particular architectural style. Administrative functions are housed in the eastern portion of the building, and the Water Quality Laboratory is located in the western portion. Indicative of their construction at separate times, the Administration Building (circa 1952) and Water Quality Laboratory (circa 1976) portions of the building vary in height. The utilitarian, roughly T-planned building is constructed of concrete block and features a flat roof. An abundance of window and door types are featured. Window units vary throughout and include metal-framed casement and hopper windows, which appear original, and aluminum sliders, which appear to be replacements. Wood and metal doors are both present. The building's north elevation features a former bay door opening that has been enclosed to contain a single door and window surrounded with wood siding.

To the west of the Administration Building/Water Quality Laboratory is a simple structure formerly used to contain hazardous materials ("former caustic soda structure"). The square-planned structure is only a few feet in height and is unroofed. It is constructed of concrete block and features a large, concrete-formed circular-planned pit at center.

### Standby Generator Enclosure

Added to the property in 1974, the property's standby generator enclosure (historically known as the emergency generator building) is located approximately 30 feet west of the Administration Building/Water Quality Laboratory. The small utilitarian building, which houses the property's backup generator, is consistent in design with the Administration Building/Water Quality Laboratory as previously described and does not embody a particular architectural style. The rectangular planned building is constructed of concrete block and features a flat roof. It is largely void of fenestration but is lined with slotted doors on the east elevation. Immediately to the north of this standby generator enclosure is an open-air structure that consists of a concrete slab sheltered by a metal framed and clad roof and contains a large fuel tank.

### Sodium Hypochlorite Tank Farm

Constructed between 1996 and 1998 and located approximately 40 feet north of the Administration Building/Water Quality Laboratory is the property's Sodium Hypochlorite Tank Farm. The tank farm structure is partially open air. It consists of a concrete slab on which a variety of equipment is mounted. The walls are steel-framed; the top half of walls are clad with metal panels while the bottom portions are open-air and surrounded with simple metal pipe railings. Similarly, a large portion of the structure is unroofed on its eastern side. Awnings extend from the building to shelter electrical equipment.

## Staging Areas

There are two staging areas located adjacent to the reservoir, a construction staging area at the north and a construction trailer staging area at the south. The construction staging area features hard-packed gravel ground and does not include any built environment features. The construction trailer staging area is accessible via a paved drive and includes a paved area within which a temporary structure (double-wide construction trailer and associated shade structure) is sited. Surrounding the construction trailer staging area is a grassy, artificially-flattened area that is partially surrounded with concrete retaining walls and a variety of mature plantings. This area was formerly developed with three small residences that were demolished between July 2008 and June 2009 (Google Earth 2021). Two sets of concrete steps and associated light standards remain.

## Surge Tank

The 1,000-gallon, metal surge tank is sited on a concrete slab approximately 60 feet southeast of the reservoir. Several metal pipes extend from the prefabricated tank in various directions into the ground as well as into adjacent associated features such as pumps and a pressure switch. Adjacent to the tank is a temporary metal storage container that contains emergency response equipment.

## Communications Site

Located approximately 550 feet east of the surge tank is a paved area that functions as a communications site. The site includes three steel towers of various form and height on which a variety of antennas and dishes are mounted. Two utilitarian modular buildings and one concrete constructed building that house communications equipment surround the towers, which were constructed between 1956 and 1960. Also located in this area are various associated equipment such as oil/gas tanks and a large generator.

***B6. Construction History (continued):**

A review of historical aerial images and archival documents provided by Metropolitan provides the construction chronology for the property outlined below:

**1952-1954**: Reservoir, I/O tower, current Water Quality Laboratory (original chlorination building/Water Quality Laboratory), and Junction Structure are constructed. Several buildings no longer extant (at least three small buildings used as caretakers' residences and what appear to be two buildings in developed area southeast of reservoir) are also constructed.
**1956-1960**: Utilitarian concrete building located within the current communication tower site is constructed.
**1960s-1970s**: Additions/alterations to the chemical feed and electrical system and distribution system resulting from an effort to implement centralized controls are made (Metropolitan 2021).
**1974**: Standby generator enclosure (currently referred to as the backup generator enclosure) is constructed.
**1976**: Current Administration Building is added to existing chlorination building/Water Quality Laboratory.
**1983**: Floating reservoir cover is installed (Metropolitan 2021).
**Post 1976**: Communications site is further developed with towers and modular buildings; developed area southeast of reservoir is further developed with additional buildings. Sodium Hypochlorite Tank Farm is constructed between 1996 and 1998.
**1989-1999**: Cracks in reservoir bottom are repaired. Reservoir bottom liner, geo-textile cushion, automatic sensing and remote recording piezometers, new floating cover, and polypropylene liner on top of the drainage layer are installed. Leak detection and monitoring system is upgraded, and reservoir is connected to seepage alarm (Metropolitan 2021).
**1999**: Reservoir liner is replaced with a multi-layer Hypalon. Extensive seismic and seepage monitoring system is installed.
**2008-2009**: Former caretakers' residences are demolished.

***B10. Significance (continued):**

## Property History and Construction Chronology (continued):

Construction of Garvey Reservoir began on October 21, 1952, and was completed on October 11, 1954, a reported six months ahead of schedule. Work at the site included "excavation, rolled fill embankment, asphaltic concrete lining and roads, and the construction of inlet and outlet pipes, outlet tower, pipe gallery, feeder pipelines, control structure, venturi meter structures, spillway, drains, steel footbridge, roads, fences, electrical facilities and appurtenant works" (Metropolitan 1954). An aerial image of the property dated 1956 depicts the reservoir in its initial development. In that image, the reservoir, I/O tower, and surrounding concrete v-ditches and earthen embankments appear generally consistent with the property's current conditions. At that time, there were three caretaker residences, which were demolished circa 2008, located south of the reservoir in the current construction trailer staging area. Also visible in the 1956 aerial photograph is the developed area southeast of the reservoir; at that time, the Junction Structure and current Water Quality Laboratory (originally a chlorination building with small integrated Water Quality Laboratory) appear extant. Also extant at that time are what appear to be two small buildings located north of the Junction Structure and current Water Quality Laboratory, which no longer remain.

## Historical Evaluation:

Water conveyance-related properties are generally eligible under National Register of Historic Places (NRHP) Criterion A/California Register of Historical Resources (CRHR) Criterion 1 if they are associated with specific important events (e.g., first long-distance transmission of hydroelectric power) or an important pattern of events (e.g., development of irrigated farming) (JRP Historical Consulting Services and California Department of Transportation 2000). Archival research indicates that Garvey Reservoir is one of several reservoirs constructed as part of Metropolitan's post-World War II expansion of the Colorado River Aqueduct system to service the rapidly expanding needs of the Los Angeles region. The research conducted for this study did not indicate that Garvey Reservoir is particularly unique or significant within this context; rather, it is an anticipated response to post-World War II growth, similar to many other infrastructural elements in the region. It does not appear to be significant within the context of water conveyance systems or any other event or pattern of events in the history of the county, region, state, or nation. Therefore, the Garvey Reservoir property is recommended ineligible for listing in the NRHP or CRHR under Criterion A/1.

Archival research identified many individuals historically associated with the Garvey Reservoir property, several of whom are listed in the *Property History and Construction Chronology* section above. Because the property has been in operation for 67 years, it is associated with a wide variety of individuals, including those who designed, constructed, and worked at it over the decades. The research conducted for this study did not identify persons associated with the property who are individually significant within a historic context and/or whose association with the property would be exemplary of that individual's productive life. Therefore, the Garvey Reservoir property is recommended ineligible for listing in the NRHP or CRHR under Criterion B/2. (See Continuation Sheet, page 6)

## Historical Evaluation (continued):

Water conveyance features are generally found eligible under NRHP Criterion C/CRHR Criterion 3 as the earliest, sole surviving, largest, or best-preserved example of a particular type of water conveyance system or a property that introduced a design innovation or evolutionary trend in engineering (JRP Historical Consulting Services and California Department of Transportation 2000). The engineering and construction of Garvey Reservoir and its appurtenant features is consistent with other reservoirs throughout the Metropolitan system, many of which remain, and is a relatively late example. Additionally, Garvey Reservoir is of common design, and this study identified no evidence suggesting that this reservoir and its associated features represented any particular engineering achievement at the time of their construction. The facility's other built environment features (e.g., I/O tower, Junction Structure, Administration Building/Water Quality Laboratory) likewise exhibit little architectural distinction. While some of the buildings appear Modern-influenced, none are excellent examples of the style, of which many exist in the region. While the designers of all of the property's features were not in all cases identified, there is nothing apparent in the design of these features to suggest they would be considered an exemplary work of any master. For the reasons summarized above, the Garvey Reservoir property does not embody the distinctive characteristics of a type, period or method of construction, represent the work of a master, or possess high artistic values. Therefore, the property is recommended ineligible for listing in the NRHP and CRHR under Criterion C/3.

Lastly, the research conducted as part of this evaluation identified no information suggesting the Garvey Reservoir has the potential to yield important information in prehistory or history (Criterion D/4).

### *B12. References (continued):

Google Earth. Archived aerial images of the project site. Accessed at https://earth.google.com/web/ throughout October 2021.

JRP Historical Consulting Services and California Department of Transportation. *Water Conveyance Systems in California, Historic Context Development and Evaluation Procedures*. December 2000.

MK Foundation. 2021. "Our History." Accessed online at: https://mk-foundation.org/our-history/. October 2021.

Metropolitan Water District of Southern California, The (Metropolitan). 1954. *Historical Record Garvey Reservoir*. Provided by Metropolitan.

Metropolitan Water District of Southern California (Metropolitan), The. 2021. Personal communication via email between Annaliese Miller, Environmental Planner, Rincon Consultants, Inc. and Michelle Morrison, Environmental Specialist, Metropolitan. October 4 and 5, 2021.

NETR Online. Various Dates. "Historic Aerials." Via Historicaerials.com [digital photograph database]. Accessed throughout October 2021. Available at: https://www.historicaerials.com/viewer.

***P5a/P5b. Photos (continued):**

**Site Photographs of Reservoir, I/O Tower, Junction Structure, Administration Building/Water Quality Laboratory, Former Caustic Soda Structure, and Backup Generator Enclosure**

**Photograph 1.** Garvey Reservoir

**Photograph 2.** I/O Tower

**Photograph 3.** Junction Structure

**Photograph 4.** Administration Building and Water Quality Laboratory

**Photograph 5.** Former Caustic Soda Structure

**Photograph 6.** Backup Generator Enclosure

***P5a/P5b. Photos (continued):**

**Site Photographs of Sodium Hypoclorite Tank Farm, Construction Staging Area, Construction Trailer Staging Area, Surge Tank, and Communications Site**

**Photograph 7.** Sodium Hypochlorite Tank Farm

**Photograph 8.** Construction Staging Area

**Photograph 9.** Construction Trailer Staging Area

**Photograph 10.** Surge Tank

**Photograph 11.** Communications Site

**Photograph 12.** Building at Communications Site