

**Administrative Draft Initial Study/  
Mitigated Negative Declaration**  
for  
**Bending the River Back into the City Project**



*City of Los Angeles*



*Bureau of Engineering  
Environmental Management Group*

October 4, 2013

DRAFT

*City of Los Angeles*

*Bureau of Engineering  
Environmental Management Group*

**October 4, 2013**

# Contents

---

|  |           |
|--|-----------|
| List of Tables.....                              | iii       |
| List of Figures.....                             | iii       |
| List of Acronyms and Abbreviations .....         | iv        |
| <b>I. INTRODUCTION.....</b>                      | <b>1</b>  |
| A. Purpose of an Initial Study.....              | 1         |
| B. Document Format.....                          | 1         |
| C. CEQA Process .....                            | 2         |
| <b>II. PROJECT DESCRIPTION .....</b>             | <b>3</b>  |
| A. Location .....                                | 3         |
| B. Purpose .....                                 | 3         |
| C. Description.....                              | 6         |
| Project Background.....                          | 6         |
| Project Elements .....                           | 10        |
| Construction .....                               | 11        |
| LA River Water Treatment Process.....            | 13        |
| Landscaping.....                                 | 14        |
| Construction Schedule and Equipment .....        | 14        |
| Regulatory Setting.....                          | 14        |
| <b>III. EXISTING ENVIRONMENT.....</b>            | <b>15</b> |
| <b>IV. POTENTIAL ENVIRONMENTAL EFFECTS .....</b> | <b>16</b> |
| A. Aesthetics .....                              | 17        |
| B. Agriculture and Forestry Resources.....       | 17        |
| C. Air Quality .....                             | 18        |
| D. Biological Resources.....                     | 23        |
| E. Cultural Resources .....                      | 24        |
| F. Geology and Soils.....                        | 25        |
| G. Greenhouse Gas Emissions .....                | 25        |
| H. Hazards and Hazardous Materials.....          | 27        |
| I. Hydrology and Water Quality .....             | 28        |
| J. Land Use and Planning.....                    | 29        |
| K. Mineral Resources.....                        | 29        |
| L. Noise .....                                   | 29        |
| M. Population and Housing.....                   | 30        |
| N. Public Services.....                          | 31        |

|   |           |
|---|-----------|
| O. Recreation .....   | 31        |
| P. Transportation/Traffic .....   | 31        |
| Q. Utilities and Service Systems.....                                     | 32        |
| R. Mandatory Findings of Significance .....                               | 32        |
| <b>V. MITIGATION MEASURES.....</b>  | <b>32</b> |
| <b>VI. NAME OF PREPARER.....</b>  | <b>36</b> |
| <b>VII. DETERMINATION – RECOMMENDED ENVIRONMENTAL DOCUMENTATION .....</b> | <b>36</b> |
| A. Summary.....   | 36        |
| B. Recommended Environmental Documentation .....                          | 37        |
| <b>VIII. REFERENCES.....</b>  | <b>38</b> |
| <b>APPENDICES</b>   |           |
| <b>Appendix A Environmental Screening Checklist .....</b>                 | <b>43</b> |
| 1. Aesthetics.....  | 43        |
| 2. Agriculture and Forestry Resources .....                               | 45        |
| 3. Air Quality.....   | 46        |
| 4. Biological Resources .....   | 48        |
| 5. Cultural Resources .....   | 52        |
| 6. Geology and Soils .....  | 59        |
| 7. Greenhouse Gas Emissions .....   | 61        |
| 8. Hazards and Hazardous Materials .....                                  | 62        |
| 9. Hydrology and Water Quality .....                                      | 64        |
| 10. Land Use and Planning .....   | 69        |
| 11. Mineral Resources .....   | 71        |
| 12. Noise .....   | 71        |
| 13. Population and Housing.....   | 74        |
| 14. Public Services .....   | 75        |
| 15. Recreation.....   | 76        |
| 16. Transportation/Traffic.....   | 76        |
| 17. Utilities and Service Systems.....                                    | 78        |
| 18. Mandatory Findings of Significance.....                               | 80        |

- Appendix B Air Quality and Climate Change Output Sheets**
- Appendix C Biological Resources and Habitat Assessment**
- Appendix D Jurisdictional Delineation**
- Appendix E Geotechnical Investigation Report**
- Appendix F EDR**
- Appendix G Hydrology**

## Tables

---

|   |  |    |
|---|--|----|
| 1 | Estimate of Regional Construction and Operational Emissions (pounds per day) ..... | 19 |
| 2 | Estimate of Localized Construction Emissions (pounds per day) .....                | 20 |
| 3 | Estimate of Construction Greenhouse Gas Emissions (metric tons) .....              | 27 |

## Figures

---

|   |   |    |
|---|---|----|
| 1 | Regional Vicinity Map.....                      | 4  |
| 2 | USGS 7.5-minute Quadrangle Map.....             | 5  |
| 3 | Site Plan .....                                 | 7  |
| 4 | Historic Photo of the Original Water Wheel..... | 9  |
| 5 | Water Wheel Rendering .....                     | 12 |

# Acronyms and Abbreviations

---

|                         |   |
|-------------------------|---|
| AQMP                    | Air Quality Management Plan   |
| ARB                     | California Air Resources Board  |
| BAT/BCT                 | Best Available Technology/Best/Best Conventional Pollutant Control Technology |
| BAU                     | business-as-usual   |
| BMPs                    | best management practices   |
| CAA                     | Clean Air Act   |
| CAPCOA                  | California Air Pollution Control Officers Association                         |
| CCAA                    | California Clean Air Act  |
| CDFW                    | California Department of Fish and Wildlife                                    |
| CDS                     | centrifugal downhole separator  |
| CEQA                    | California Environmental Quality Act  |
| City                    | City of Los Angeles   |
| City Council or Council | Los Angeles City Council  |
| CMP                     | Congestion Management Program   |
| CNDDDB                  | California Natural Diversity Database   |
| CNPS                    | California Native Plant Society   |
| CO <sub>2</sub> e       | carbon dioxide equivalent   |
| CRPR                    | California Rare Plant Rank  |
| CUP                     | Conditional Use Permit  |
| CWA                     | Clean Water Act   |
| dBA                     | A-weighted decibels   |
| EDR                     | Environmental Data Resources  |
| EIR                     | environmental impact report   |
| EMG                     | Environmental Management Group  |
| EPA                     | U.S. Environmental Protection Agency  |
| FAR                     | floor area ration   |
| FEMA                    | Federal Emergency Management Agency   |
| FTA                     | Federal Transit Administration  |
| GHG                     | greenhouse gas  |
| HCM                     | Historic-Cultural Monument  |
| HEC-RAS                 | Hydrologic Engineering Center-River Analysis System                           |
| LADWP                   | Los Angeles Department of Water Power   |
| LASHPMDP                | Los Angeles State Historic Park Master Development Plan                       |
| L <sub>max</sub>        | maximum sound level   |
| LST                     | Localized Significance Threshold  |
| MMT                     | million metric tons   |
| MT                      | metric ton  |
| MTBM                    | microtunnel boring machine  |
| NAHC                    | Native American Heritage Commission   |
| NPDES                   | National Pollutant Discharge Elimination System                               |

|                  |   |
|------------------|---|
| O <sub>3</sub>   | ozone   |
| OCS              | overhead contact system                                     |
| OHWM             | Ordinary High Water Mark                                    |
| Pb               | lead  |
| PM10             | particulate matter smaller than 10 micrometers in diameter  |
| PM2.5            | particulate matter smaller than 2.5 micrometers in diameter |
| proposed project | Bending the River into the City Project                     |
| PVC              | polyvinyl chloride  |
| RCPG             | Regional Comprehensive Plan and Guide                       |
| ROC              | reactive organic compound                                   |
| RTP              | Regional Transportation Plan                                |
| RWQC             | Regional Water Quality Control Board                        |
| SCAQMD           | South Coast Air Quality Management District                 |
| SFP              | State Fully Protected                                       |
| SSC              | California Species of Special Concern                       |
| State Park       | Los Angeles State Historic Park                             |
| SWPPP            | Stormwater Pollution Prevention Plan                        |
| TAC              | toxic air containment                                       |
| TBM              | tunnel-boring machine                                       |
| USACE            | U.S. Army Corps of Engineers                                |
| USGS             | U.S. Geological Survey                                      |
| ZIMAS            | Zoning Information and Map Access System                    |

[this page left blank intentionally]



CITY OF LOS ANGELES  
CALIFORNIA ENVIRONMENTAL QUALITY ACT  
**INITIAL STUDY**  
(Article I – City CEQA Guidelines)

Council District: 1

Date: October 4, 2013

Lead City Agency: Bureau of Engineering - Central District

Project Title: Bending the River Back into the City Project

## I. INTRODUCTION

### A. Purpose of an Initial Study

The California Environmental Quality Act (CEQA) was enacted in 1970 for the purpose of providing decision-makers and the public with information regarding environmental effects of proposed projects, identifying means of avoiding environmental damage, and disclosing to the public the reasons behind a project's approval, even if it leads to environmental damage. The Bureau of Engineering Environmental Management Group (EMG) has determined that the proposed project is subject to CEQA, and no exemptions apply. Therefore, the preparation of an initial study is required.

An initial study is a preliminary analysis conducted by the lead agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the initial study concludes that the project, with mitigation, may have a significant effect on the environment, an environmental impact report should be prepared; otherwise the lead agency may adopt a negative declaration or mitigated negative declaration.

This initial study has been prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.), and the City of Los Angeles CEQA Guidelines (1981, amended July 31, 2002).

### B. Document Format

This initial study is organized into eight sections, as follows:

Section I, Introduction, provides an overview of the project and the CEQA environmental documentation process.

Section II, Project Description, provides a description of the project location,

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

project background, and project components.

Section III, Existing Environment, provides a description of the existing environmental setting, with a focus on features of the environment that could affect the proposed project or be affected by the proposed project.

Section IV, Potential Environmental Effects, provides a detailed discussion of the environmental factors that could be affected by this project, as indicated by the screening checklist in Appendix A.

Section V, Mitigation Measures, provides the mitigation measures that would be implemented to ensure that potential adverse impacts of the proposed project would be reduced to a less-than-significant level.

Section VI, Preparation and Consultation, provides a list of key personnel involved in the preparation of this report and key personnel consulted.

Section VII, Determination – Recommended Environmental Documentation, provides the recommended environmental documentation for the proposed project.

Section VIII, References, provides a list of reference materials used during the preparation of this report.

### C. CEQA Process

Once the adoption of a negative declaration (or mitigated negative declaration) has been proposed, a public comment period opens for no less than 20 days, or 30 days if there is state agency involvement. The purpose of this comment period is to provide public agencies and the general public an opportunity to review the initial study and comment on the adequacy of the analysis and the findings of the lead agency regarding potential environmental impacts of the proposed project. If a reviewer believes the project may have a significant effect on the environment, the reviewer should (1) identify the specific effect, (2) explain why it is believed the effect would occur, and (3) explain why it is believed the effect would be significant. Facts or expert opinion supported by facts should be provided as the basis of such comments.

After the close of the public review period, the Board of Public Works considers the negative declaration or mitigated negative declaration, together with any comments received during the public review process, and makes a recommendation to the Los Angeles City Council (City Council or Council) regarding whether to approve the project. One or more Council committees may then review the proposal and documents and make their own recommendation to the full City Council. The City Council, as the decision-making body, also considers the negative declaration or mitigated negative declaration, together

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

with any comments received during the public review process, when making the final decision to approve or disapprove the project.

During the project approval process, persons and/or agencies may address either the Board of Public Works or the City Council regarding the project. Public notification of agenda items for the Board of Public Works, Council committees, and City Council is posted 72 hours prior to the public meeting. The Council agenda can be obtained by visiting the Council and Public Services Division of the Office of the City Clerk at City Hall, 200 North Spring Street, Suite 395; by calling 213/978-1047, 213/978-1048, or TDD/TTY 213/978-1055; or by going online at <http://www.lacity.org/CLK/index.htm>.

If the project is approved, the City of Los Angeles (City) will file a Notice of Determination with the County Clerk within 5 days. The Notice of Determination will be posted by the County Clerk within 24 hours of receipt. This begins a 30-day statute of limitations on legal challenges to approval under CEQA. The ability to challenge the approval in court may be limited to those persons who objected to approval of the project and to issues that were presented to the lead agency by any person, either orally or in writing, during the public comment period.

As a covered entity under Title II of the Americans with Disabilities Act, the City does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services, and activities.

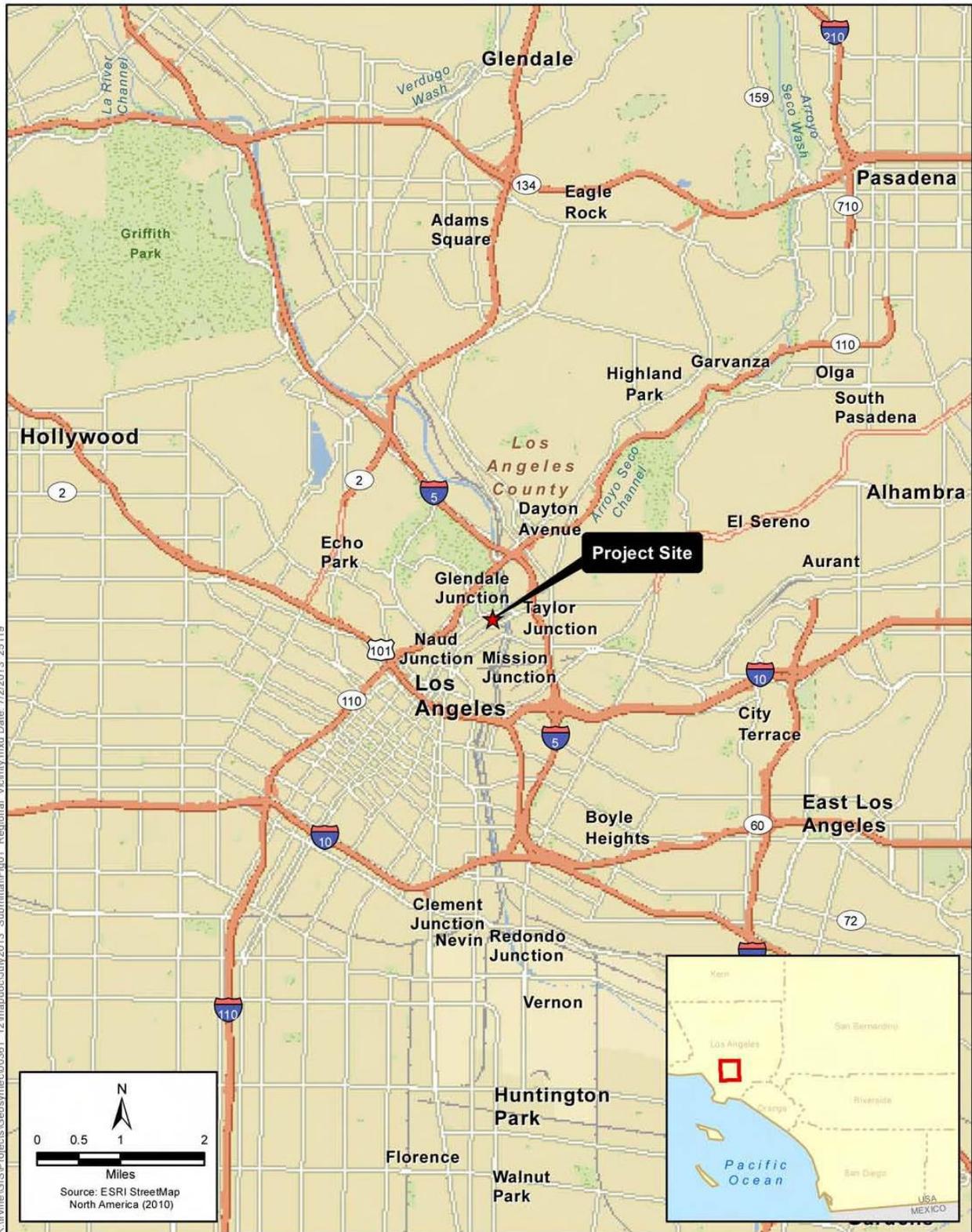
## II. PROJECT DESCRIPTION

### A. Location

The Bending the River Back into the City Project (proposed project) would be located at 1796 N. Baker Street, Los Angeles. The property, which is currently owned by the Los Angeles County Metropolitan Transportation Authority (Metro), is located approximately 0.4 mile west of the Golden State Freeway and approximately 0.8 mile east of Dodger Stadium. The project area is approximately 2 miles north of downtown Los Angeles. Figure 1 shows the regional location of the proposed project. The project site is mapped within an unsectioned portion (Township 1 South, Range 13 West) of the U.S. Geological Survey (USGS) 7.5-minute Los Angeles topographic quadrangle map (Figure 2).

### B. Purpose

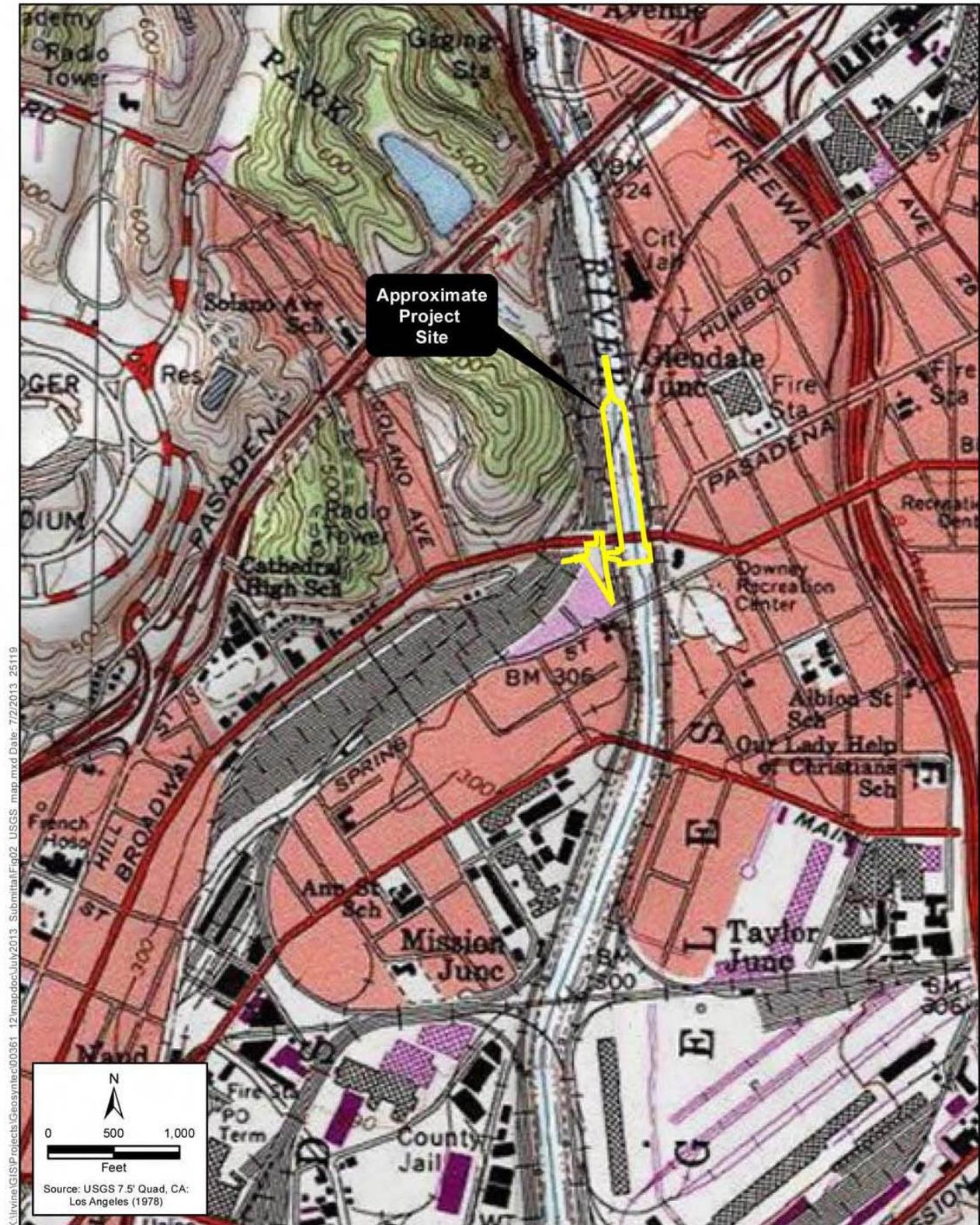
The purpose of the proposed project is to support water conservation by providing a source of irrigation water for the Los Angeles State Historic Park (State Park) and other non-potable water demands. The proposed project will also create an aesthetic focal point for the surrounding neighborhood.



K:\Irvine\GIS\Projects\Geosync\00361\_12\mapdoc\July2013\_Submittal\Fig01\_Regional\_Vicinity.mxd Date: 7/2/2013 2:51:19



**Figure 1**  
**Regional Vicinity Map**  
**Bending the River Back into the City Project**



K:\Irvine\GIS\Projects\Geosym\ec0361\_12\mapdoc\July2013\_Submittal\Fig02\_USGS\_map.mxd Date: 7/2/2013 2:11:19



Figure 2  
USGS 7.5-minute Quadrangle Map  
Bending the River Back into the City Project

The proposed project aims to:

- Physically divert water from the Los Angeles River (LA River) and create an aesthetic/educational statement, showing that the LA River can be used as a source of water;
- Create a water wheel, which would be loosely modeled after the historic wheel that existed near the project location;
- Enhance connections between the surrounding community, and the LA River; and
- Provide a viable long-term non-potable irrigation water source for the State Park and other local demands.

### C. Description

The proposed project would involve construction and operation of a water wheel and may include the following elements:

- Excavation of a 1,300-cubic-yard pit and maintenance area for installation of the water wheel;
- Construction of side channel tunnels to the LA River, connecting the LA River to the water wheel pit; and
- Installation of an inflatable dam within the LA River channel, creating a water impoundment area upstream of the proposed inflatable dam.

For the purposes of this report, the term “project site” refers to the proposed 6.29-acre area encompassing the proposed construction limits and the maximum impoundment area upstream of the proposed dam (see Figure 3).

### Project Background

The project applicant, Metabolic Studio, desires to create a project that reintegrates the City with its historic source of water. Under the proposed project, funded by the applicant, a water wheel, described in more detail below, with both recreational and utilitarian functions would be installed near the site of the Zanja Madre (Mother Ditch), the original aqueduct that brought water to the Pueblo de Los Angeles from the LA River. In the 1850s, the City constructed a system that increased the water supply to the Zanja Madre. This included a water wheel that raised a portion of LA River water to a height that permitted gravity flow to homes, fields, and storage sites. As part of this system, a brick reservoir was built in the center of the plaza. One original water wheel was adjacent to the LA River, at the approximate location of the proposed project. Modern water conveyance systems, including the Los Angeles Aqueduct, eventually replaced the Zanja Madre as the principal water supply to the City (Reference: 57) (see Figure 4).



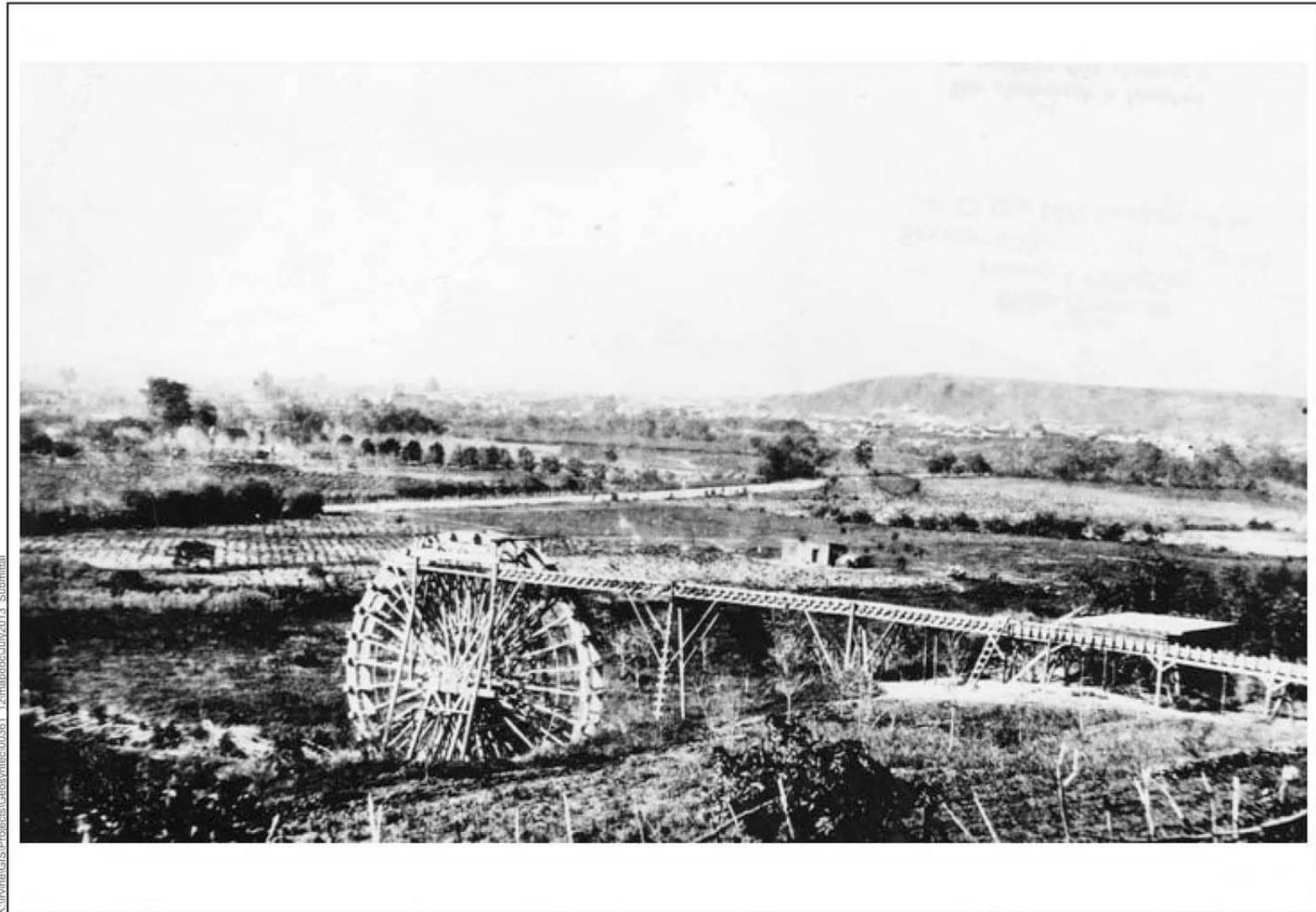
K:\Irvine\GIS\Projects\GIS\Irvine\12\main\doc\July2013\_Submittal\Fig03\_Site\_Plan.mxd Date: 7/11/2013 2:26:29



**Figure 3**  
**Site Plan**  
**Bending the River Back into the City Project**

[this page left blank intentionally]

DRAFT



K:\Irvine\GIS\Projects\Geosyntec\00361\_12\mapdocs\July2013\_Submittal



**Figure 4**  
**1868 Photo of Water Wheel Located near North Broadway at the Base of Solano Canyon**  
**Bending the River Back into the City Project**

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

The proposed project would provide a link between the site of the historic water wheel that operated in the mid-19<sup>th</sup> century and historic water uses of the LA River in the vicinity. The area adjacent to the project site includes a number of warehouse spaces, which would be enhanced by the presence of the water wheel. The project would also provide recreational, historical, and environmental educational opportunities that would enhance the experience of visitors to the adjacent State Park. Environmental benefits would include increased water use efficiency and water conservation and improved water quality. Economically, the local area stands to reduce irrigation water purchase costs by more than \$100,000 annually, which is assumed to increase at a rate of more than 2.5% per year, for a 30-year savings of more than \$4.5 million.

Project Elements

The proposed project would divert water from the LA River, lift the water by use of the water wheel, treat the water through filtration and UV disinfection, and then distribute the water for use. The diversion would require an approximately 6-foot-high inflatable dam to be installed in the LA River. The dam would be controlled by a computerized system. For operating the dam, it is anticipated that dual air blowers would be required to inflate/deflate the dam. Pooled water would extend approximately 1,220 feet upstream, creating a surface impoundment of approximately 16 acre-feet. The dam (and associated ponded water) would extend across the entire width of the LA River channel. During rain events, the dam would automatically be lowered, allowing stormwater flows to pass unimpeded. During low-flow conditions, the dam would be raised and pool water to a depth of 6 feet. When the dam is raised, pooled water would be diverted through a side channel that would be bored into the west bank of the river, immediately upstream of the dam. The side channel would direct LA River water to the water wheel, which would be entirely powered by the force of the diverted LA River flows. A small portion of these flows, approximately 80 gallons per minute, would be raised from the inlet tunnel in buckets that would be attached to the wheel. These buckets would lift the water approximately 60 feet and empty it into a collection trough. The collection trough would convey the water under gravity to storage tanks, which would connect to a distribution and treatment system. When demand for irrigation water exists, water would be directed through a 6-inch-diameter pipe, making it available for irrigation. When irrigation water is not required, the water would be diverted back to the LA River. After impacting the blades, more than 99% of the water would be directed into a return-side channel pipe and flow back into the LA River downstream of the dam. Flows from the pipe would re-enter the channel less than 100 feet downstream from the diversion point.

Construction details of the proposed project are provided below.

### Construction

#### Excavation/Earthwork

Following pavement demolition, a 10- by 80-foot pit (approximate finished dimensions) with a curved cut-out area for wheel maintenance would be excavated to accommodate the water wheel. Excavation would extend to a depth of approximately 40 feet at approximately 8-foot intervals. Steel H-beams would be used to shore the perimeter of the pit. Reinforcement of the pit walls would require bracing and timber lagging. A mud slab would provide a stable, flat surface for the bottom of the pit, and concrete would be used to reinforce the base of the pit so that subsequent tunnel work could be performed. As part of the pavement demolition and excavation process, up to 10,000 square feet of surface asphalt at the water wheel site and in the LA River and 5,500 cubic yards of soil would be removed. The pavement demolition and excavation phases of the proposed project are expected to generate the most construction traffic and require the most equipment.

#### Side Channel Tunnel Construction; Inflatable Dam Foundation

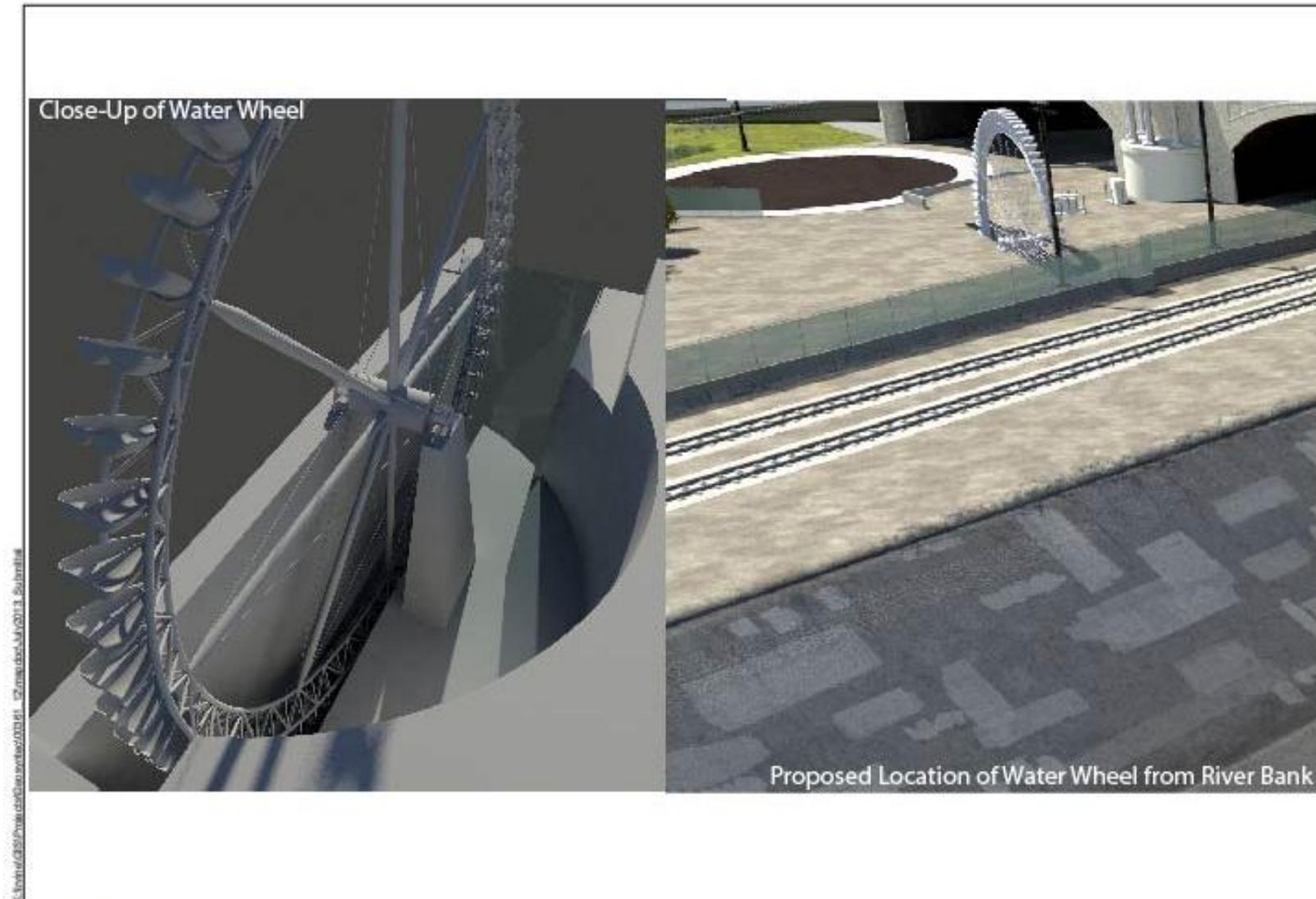
Once excavation of the pit is complete, the side channel, which would connect the pit to the west bank of the LA River, would be constructed using a microtunnel boring machine (MTBM). The side channel would be approximately 400 feet long. Construction of the side channel would require concrete along the river channel wall to be removed to a height of 10 feet as well as shallow excavation (3 to 6 feet) to accommodate receiving pits for the MTBM. The side channel would be constructed from a reinforced concrete pipe with a maximum diameter of 48 inches.

For installation of the dam, a small crane would be required to lift the rubber dam from the delivery truck to its final position in the channel. The rubber dam would be unrolled from one abutment to the other. A backhoe or excavator could be used to facilitate unrolling.

#### Water Wheel Structure

The water wheel's foundation and the concrete pads for other elements of the proposed project would be constructed in accordance with the building code and design recommendations in the geotechnical plans. Foundations may include caissons or other foundation structures.

Once the foundations are in place, water wheel installation would commence. The wheel would be fabricated off-site and assembled on-site in the wheel housing pit. Small concrete structures would be poured on opposite sides of the pit to hold the main wheel axle. The water wheel would be a maximum of 70 feet in diameter, with the hub at the level of the existing grade so that half of the wheel would be below the ground surface and the other half would be above (see Figure 5, which provides artistic renderings of the proposed water wheel).



**Figure 5**  
**Preliminary Design Concept of Water Wheel**  
**Bending the River Back into the City Project**

LA River Water Treatment Process

As described above, water would be lifted by the wheel, empty into a collection trough, and then flow by gravity to an underground cistern adjacent to the wheel. As water enters the cistern, it would flow through a concrete vault with a continuous deflective separator (CDS) that would remove trash and particles as small as 100 microns. This vault would be entirely underground.

Water treated through the CDS unit would be stored in the cistern until there is a demand for irrigation water at the State Park. When an irrigation valve opens at the park, a pump would sense a reduction in pressure in the non-potable water supply line and turn on. Water from the cistern would flow through a 25-horsepower variable-speed transfer pump to a disc filter, a flow-through device that filters down to 120 mesh (150 microns), the appropriate standard for drip or spray irrigation. From the filter, water would flow through an ultraviolet light disinfection system and continue on to a pressure tank.

The filter's backwash cycle would be controlled by a 12-volt system that would be set to backwash when the filter inlet/discharge pressure differential reaches 7 pounds per square inch. This would produce approximately 70 gallons per minute of backwash water, which would be conveyed via underground pipe back to the inlet for the CDS unit. Alternatively, if a sanitary sewer permit is obtained, the filter may discharge the backwash water to the sewer.

The industrial-grade ultraviolet light disinfection system would consist of an approximately 8-foot-long (horizontal), 6-inch-diameter stainless steel cylinder fitted with 12 high-output germicidal ultraviolet lamps. The unit, which would be powered by a 120-volt current, would have a 99.9% bacterial kill rate at up to 300 gallons per minute. The lamps would be automatically wiped (cleaned) with use of a pneumatically actuated wiper system.

Disinfected water would flow to an 86-gallon steel pressure tank for storage and for maintaining consistent system pressures. This small pressure tank, measuring 48 inches tall and 26 inches in diameter, would provide instantaneous pressure upon demand and allow the pump to start slowly, thereby reducing wear on the pump's motor. From the pressure tank, water would be conveyed to the State Park through an underground 6-inch-diameter polyvinyl chloride (PVC) irrigation supply pipe.

The treatment equipment could be arranged on a small concrete apron (minimum dimensions: 12 by 16 feet). The equipment would be covered by a shade structure or, preferably, a small utility shed or building.

### Landscaping

Construction activities associated with this phase of work include the placement of landscaping materials in accordance with design specifications. The project would comply with Ordinance No. 170,978 (Water Management), which imposes water conservation measures for landscape, installation, and maintenance activities (e.g., use drip irrigation and soak hoses in lieu of sprinklers to lower the amount of water lost to evaporation and overspray, set automatic sprinkler systems to irrigate during the early morning or evening hours to minimize water loss due to evaporation, and water less in the cooler months and during the rainy season).

### Construction Schedule and Equipment

Construction activities are anticipated to begin in March 2014 and last approximately 9.5 months. Construction activities in the river would be limited to between April and October of 2014. The construction equipment used during the different phases would include a hydraulic crane, vibratory sheet pile driver, backhoe/loader, hoe-ram attachment, forklift, hydraulic excavator, muck disposal truck, welder, wheel loader, mini-backhoe, submersible pump, generator (10 kilowatt), concrete pump truck, concrete vibrator, and compressor (185 cubic feet per minute).

No utilities would need to be relocated as a result of construction activities. Access to the project site would be provided from Baker Street, which terminates at a cul-de-sac at the Metro property. During installation of the delivery pipe that would lead from the project site to the State Park, the end of Baker Street may be partially closed for up to 3 days. This process would involve cut-and-cover work to install a 6-inch-diameter PVC pipe. However, only one half of the road would be closed at a given time, thereby allowing continuous use of the road.

### Regulatory Setting

The proposed project would require an application to the State Water Resources Control Board, Division of Water Rights, to allow water from the LA River to be appropriated by the project. The amount of water to be appropriated would be 106 acre-feet per year, which is the amount required to meet the estimated annual irrigation demand of the State Park and other nearby recreational facilities, including the Downey Recreation Center, and the proposed Albion Dairy Park.

To gain approval, there must be a reasonable likelihood that unappropriated water will be available at the point of water diversion for the proposed project. The LA River is not considered a source of potable water, and any claims would be for non-potable uses only, such as irrigation. No active appropriation rights to use LA River water are currently taking water from the river in the vicinity of the water wheel project, and the amount of water required for the project is

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

anticipated to be available.

The analysis in this document assumes that, unless otherwise stated, the project will be designed, constructed, and operated in accordance with all applicable laws, regulations, ordinances, and formally adopted City standards, including:

- Los Angeles Municipal Code (Reference 18)
- Bureau of Engineering Standard Plans (Reference 24)
- Standard Specifications for Public Works Construction (Reference 1)
- Work Area Traffic Control Handbook (Reference 2)
- Additions and Amendments to the Standard Specifications for Public Works Construction (Reference 23).

The following entitlements would be required from the City to approve the proposed project:

- It is not anticipated that land use entitlements would be required to approve the project.
- A minor subdivision approval is anticipated to allow transfer of the water wheel property site from the property owner to the applicant. No additional development of the site is proposed or anticipated. This will require approval from Metro.

The following regulatory permits would be required from federal and state agencies:

- Section 408 permit from the U.S. Army Corps of Engineers (USACE), under the Clean Water Act (CWA);
- CWA Section 404 Nationwide Permit;
- California Department of Fish and Wildlife (CDFW) Section 1602 Lake and Streambed Alteration Agreement Notification;
- Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification Application; and
- Native American consultation.

### III. EXISTING ENVIRONMENT

The project site is located within and immediately west of the LA River, between State Route 110 and U.S. 101. It is also adjacent to an Amtrak/Metrolink railroad right-of-way and immediately south of the North Broadway Bridge, which is a designated City Historic-Cultural Monument (No. 907). It is also within the Central City North Community Plan, Los Angeles River Revitalization Master Plan, and Cornfield/Arroyo Seco Specific Plan areas. The project site includes assessor's parcel numbers (APNs) 5409-001-900, 5409-001-901, 5414-016-903,

and 5447-032-900.

The project site is zoned PF-1XL (designated Public Facilities) and OS-1XL (designated Open Space). Neighboring land uses include the State Park to the west; the LA River and open space to the east; light manufacturing, creative/warehouse, and commercial space to the southwest; and light industrial uses to the north. Metro's Gold Line maintenance facility is located adjacent to the north side of the project site. Elysian Park is also located to the north (500 feet away). This park is situated on a hill and contains a relatively dense cover of native and ornamental shrubs and trees.

Portions of the State Park located within the project area include land where native plants are being installed for the purposes of an interpretive walk; a disced field and areas with maintained turf grass are also present. The majority of the plants in the interpretive nature walk area of the State Park have been installed; however, some are still in containers. It appears that some nursery work or plant propagation is ongoing.

The LA River, which traverses north/south through the project area and is completely concrete lined, had a small flow (approximately 10 to 12 inches deep in the 20-foot-wide pilot channel) observed during a field visit to the site on June 22, 2012. A minimal amount of sediment deposition and vegetation are present within the river, and both sides are flanked by active railroads. The railroads and associated lands are surrounded by developed properties, but some areas contain bare ground and ruderal vegetation. Lands situated east of the river within the project area are predominately urban/developed properties, but some areas contain ornamental vegetation.

The nearest residence is located 900 feet northwest of the project site. Elevations within the project area range from approximately 280 feet above mean sea level (MSL) within the LA River to approximately 405 feet above MSL within Elysian Park. The average elevation within the State Park is approximately 306 feet above MSL.

#### IV. POTENTIAL ENVIRONMENTAL EFFECTS

The environmental factors checked below could be affected by this project, involving at least one impact that is a "potentially significant impact," as indicated by the checklist in Appendix A. A detailed discussion of these potential environmental effects follows.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                                   |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input checked="" type="checkbox"/> Geology/Soils                      |
| <input type="checkbox"/> Greenhouse Gas Emissions        | <input type="checkbox"/> Hazards and Hazardous Materials    | <input checked="" type="checkbox"/> Hydrology/Water Quality            |
| <input type="checkbox"/> Land Use/Planning               | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise   |
| <input type="checkbox"/> Population/Housing              | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Transportation/Traffic          | <input type="checkbox"/> Utilities/Service Systems          | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

A. Aesthetics

Initial screening determined that the proposed project would cause a less-than-significant aesthetic impact (please refer to Appendix A). The proposed project would not have a substantial effect on a scenic vista because there are no officially recognized scenic vistas within the project viewshed. The North Broadway Bridge, as a visual and historic landmark, draws a small number of sightseers—a viewing group that is considered sensitive. Other sensitive viewing groups include nearby Elysian Park visitors (within 1,500 feet of the project site) at vantages with south- and southeast-facing views and a small number of residential viewers with south- and southeast-facing views residing at a particular multi-story building on Casanova Street (just north of North Broadway). All other viewing groups, including Metrorail passengers, North Broadway Bridge motorists and pedestrians, and nearby workers in the Gold Line shop and yard, as well as other public facilities workers within the project viewshed, are considered only low to moderately sensitive. Furthermore, the residents at the aforementioned Casanova Street location would have highly constrained views of the project and, thus, would be likely to have a lower level of concern about the project’s visual effects. The project is not proposed in visual proximity to a state scenic highway and would not require removal of or damage to trees, rock outcroppings, or historic buildings. The proposed project would not substantially degrade existing visual character or quality within the project’s visual setting. It would neither diminish features that substantially contribute to visual character within the viewshed nor call for the conversion of natural open space. In addition, it would not obstruct views of key visual resources. Project lighting features, both during construction and operation, would not create a source of substantial light. In addition, the water wheel would not be designed with materials or finishes that would produce glare from reflected sunlight.

B. Agriculture and Forestry Resources

Initial screening determined that the proposed project would cause no impact or a less-than-significant impact (please refer to Appendix A).

### C. Air Quality

Air quality in the United States is governed by the federal Clean Air Act (CAA). In addition to being subject to requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the U.S. Environmental Protection Agency (EPA). In California, the CCAA is administered by the California Air Resources Board (ARB) at the state level and by air districts at regional and local levels.

The project lies within the Los Angeles County portion of the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Basin is designated as a nonattainment area (i.e., ozone [O<sub>3</sub>], particulate matter smaller than 10 micrometers in diameter [PM<sub>10</sub>], particulate matter smaller than 2.5 micrometers in diameter [PM<sub>2.5</sub>], and lead [Pb]).<sup>1</sup>

The project would be subject to SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies were based, in part, on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). The most recent AQMP is the 2012 AQMP. The Final 2012 AQMP was adopted by the SCAQMD Governing Board on December 7, 2012, and approved by ARB on January 25, 2013.

A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. The most recent AQMP adopted by SCAQMD incorporates SCAG's 2012–2035 Regional Transportation Plan (RTP) socioeconomic forecast projections of regional population and employment growth. The 2012–2035 RTP projects that the population of the region will grow as approximately 1.5 million new households move to the area between now and 2035. As the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, SCAG addresses regional issues related to transportation, the economy, community development, and the environment (Reference: 53).

As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management and Regional Mobility chapters. These chapters provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the RCPG and AQMP are based, in part, on projections

---

<sup>1</sup> Only the Los Angeles County portion of the Basin is designated as a nonattainment area for Pb under the National Ambient Air Quality Standards (NAAQS). The Orange County, San Bernardino County, and Riverside County portions of the Basin are designated as attainment areas for Pb under the NAAQS.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

originating with county and city general plans.<sup>2</sup>

The project would result in no changes in land use. Construction would be short term and result in emissions that would be below regional and localized SCAQMD thresholds (see Table 1 and Table 2, below). Following construction, the project would not result in population or employment growth. Periodic trips to maintain the dam and water wheel would be made by maintenance personnel. The proposed project would not permanently change the existing or planned transportation network or traffic patterns in the area but instead offer a source of irrigation and education at the existing State Park. Because the project would result in no changes in land use, population, or employment, the project would be consistent with existing general plan and growth projections, which are accounted for within SCAQMD attainment forecasts. Thus, project development would not conflict with any air quality management plan, and no impact would occur.

Reference: 48

**Table 1 – Estimate of Regional Construction and Operational Emissions (pounds per day)**

| Emissions Estimate (pounds per day)     |           |                 |           |                 |           |           |
|---|-----------|-----------------|-----------|-----------------|-----------|-----------|
| Emission Source                         | ROG       | NO <sub>x</sub> | CO        | SO <sub>2</sub> | PM10      | PM2.5     |
| <b>Construction</b>                     |           |                 |           |                 |           |           |
| Mobilization                            | 1         | 12              | 8         | < 1             | 1         | 1         |
| Waterwheel Pit/Jacking Shaft            | 5         | 35              | 21        | < 1             | 3         | 2         |
| Intake Shaft                            | 6         | 44              | 27        | < 1             | 4         | 2         |
| Outlet Shaft                            | 6         | 46              | 29        | < 1             | 3         | 2         |
| MBTM Tunneling – Intake                 | 4         | 31              | 13        | < 1             | 2         | 1         |
| Installation of Inflatable Dam          | 1         | 13              | 5         | < 1             | < 1       | < 1       |
| Wheel Foundation and Raceway            | 1         | 5               | 3         | < 1             | < 1       | < 1       |
| MBTM Tunneling – Outlet                 | 4         | 31              | 13        | < 1             | 2         | 1         |
| Installation of Wheel                   | 3         | 26              | 11        | < 1             | 1         | 1         |
| Landscape Installation                  | < 1       | 3               | 2         | < 1             | < 1       | < 1       |
| Maximum Regional Emissions              | 6         | 46              | 29        | < 1             | 4         | 2         |
| SCAQMD Regional Construction Thresholds | 75        | 100             | 550       | 150             | 150       | 55        |
| <b>Exceed Threshold?</b>                | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b> |
| <b>Operations</b>                       |           |                 |           |                 |           |           |
| Worker Trips                            | < 1       | < 1             | < 1       | < 1             | < 1       | < 1       |
| SCAQMD Regional Construction Thresholds | 55        | 55              | 550       | 150             | 150       | 55        |
| <b>Exceed Threshold?</b>                | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b>       | <b>No</b> | <b>No</b> |

<sup>2</sup> SCAG serves as the federally designated MPO for the Southern California region.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| Emissions Estimate (pounds per day)   |     |                 |    |                 |      |       |
|---|-----|-----------------|----|-----------------|------|-------|
| Emission Source   | ROG | NO <sub>x</sub> | CO | SO <sub>2</sub> | PM10 | PM2.5 |
| * No construction phases are expected to overlap.<br>Source: ICF International, 2013; CalEEMod output sheets provided in air quality and climate change appendix. |     |                 |    |                 |      |       |

**Table 2 – Estimate of Localized Construction Emissions (pounds per day)**

| Emissions Estimate (pounds per day)  |           |                 |            |                 |           |           |
|--|-----------|-----------------|------------|-----------------|-----------|-----------|
| Emission Source  | ROG       | NO <sub>x</sub> | CO         | SO <sub>2</sub> | PM10      | PM2.5     |
| <b>Construction</b>  |           |                 |            |                 |           |           |
| Mobilization   | < 1       | 2               | 2          | < 1             | 0.2       | 0.2       |
| Waterwheel Pit/Jacking Shaft   | 4         | 27              | 14         | < 1             | 1.3       | 1.2       |
| Intake Shaft   | 5         | 36              | 20         | < 1             | 1.8       | 1.6       |
| Outlet Shaft   | 5         | 36              | 20         | < 1             | 1.6       | 1.6       |
| MBTM Tunneling – Intake  | 3         | 31              | 12         | < 1             | 1.5       | 1.2       |
| Install Inflatable Dam   | 1         | 12              | 4          | < 1             | 0.4       | 0.4       |
| Wheel Foundation and Raceway   | 1         | 5               | 2          | < 1             | 0.2       | 0.2       |
| MBTM Tunneling – Outlet  | 3         | 31              | 12         | < 1             | 1.3       | 1.2       |
| Install Wheel  | 3         | 24              | 10         | < 1             | 0.9       | 0.9       |
| Landscape Install  | < 1       | < 1             | < 1        | < 1             | < 1       | < 1       |
| Maximum Daily Emissions <sup>a</sup>   | 5         | 36              | 20         | < 1             | 1.8       | 1.6       |
| <b>SCAQMD Localized Construction Thresholds<sup>b</sup></b>  | --        | <b>74</b>       | <b>680</b> | --              | <b>5</b>  | <b>3</b>  |
| <b>Exceed Threshold?</b>   | <b>No</b> | <b>No</b>       | <b>No</b>  | <b>No</b>       | <b>No</b> | <b>No</b> |
| <sup>a</sup> No construction phases would overlap.<br><sup>b</sup> Localized thresholds derived from SCAQMD LST tables are based on the project location (SRA 1, Central Los Angeles), the project area disturbed in any given day (1 acre), and the distance to the nearest sensitive receptor (25 meters).<br>Source: ICF International, 2013; CalEEMod output sheets provided in air quality and climate change appendix. |           |                 |            |                 |           |           |

Construction of the proposed project would result in the short-term generation of criteria pollutant and toxic air containment (TAC) emissions. Mass daily combustion exhaust and fugitive dust (PM10 and PM2.5) emissions were estimated using SCAQMD's California Emissions Estimator Model (CalEEMod), version 2011.1.1 (South Coast Air Quality Management District 2011). Assumptions regarding construction phasing, equipment use, as well as excavation and demolition quantities were obtained from the project applicant. A complete list of the construction equipment by phase, construction phase duration assumptions, and changes to the modeling default values used in this analysis are included in the air quality and climate change appendix to this document (Appendix B).

Project construction is anticipated to begin in March 2014 and last approximately

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

9.5 months. The total magnitude, duration, and intensity of construction activity has a substantial effect on the quantity of construction emissions (and related pollutant concentrations) occurring at any one time. Based on information from the project applicant, an assumption was made that no phases of construction would overlap. Maximum daily emissions are thus based on the maximum daily emissions within a single phase. It was conservatively assumed that each piece of equipment would operate 8 hours per day.

The estimate of project emissions during construction is provided in Table 1. As shown in Table 1, construction-period emissions are not anticipated to exceed SCAQMD regional significance thresholds. As such, impacts would be less than significant, and no mitigation measures are required. It is important to note, however, that construction contractors are still required to follow all applicable SCAQMD rules and regulations, such as SCAQMD Rule 403 (Fugitive Dust), among other rules.

Following construction, operations would consist of periodic maintenance trips by workers as well as a minimal amount of electricity consumption to power the water treatment system. The estimate of project emissions during operations associated with worker trips is also provided in Table 1. As shown in Table 1, operations-period emissions are not anticipated to exceed SCAQMD regional significance thresholds. As such, impacts would be less than significant, and no mitigation measures are required.

The CalEEMod model output and worksheets are provided in the air quality and climate change appendix to this document.

*Local Construction and Operational Impacts*

The proposed project would contribute to localized air pollutant emissions during construction (short term) and project operations (long term). SCAQMD has divided the Basin into air monitoring areas and developed a set of mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from project construction and operations. The project site is located in the Central Los Angeles Monitoring Area (Source Receptor Area [SRA] 1). The nearest receptor is the Downey Recreation Center, located approximately 82 feet east of the eastern-most portion of the project area (the eastern edge of the river channel). Assuming an 85-foot receptor distance provides for a conservative analysis because the majority of construction would take place between the inflatable dam, located in the center of the LA River channel, and the waterwheel itself, located near the end of Baker Street on the western edge of the project area. Therefore, receptors would most likely be located much farther than 25 meters from construction activities.

If the on-site emissions from proposed construction activities are below the Localized Significance Threshold (LST) emissions levels found in the LST mass

rate look-up tables for the project site's SRA, then project emissions would not have the potential to cause a significant localized air quality impact.

As discussed previously, mass daily emissions during construction were compiled using the CalEEMod emissions inventory model. However, only on-site construction emissions were considered for purposes of comparison with the LST mass rate look-up tables. Consistent with SCAQMD LST guidelines, off-site activity, including delivery/haul truck activity and employee trips, was not considered in the evaluation of localized impacts. With respect to operations-period emissions, no emissions are expected to occur on-site because "operations" include only periodic employee trips and electricity consumption, which would be generated off-site.

The estimate of project construction-period on-site mass emissions is presented in Table 2. As shown therein, construction and operations emissions would remain below SCAQMD LSTs for the project area. As such, impacts would be less than significant, and no mitigation measures are required.

Reference: 48

SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards and made in accordance with the requirements of the federal and state Clean Air Acts. As discussed earlier (see discussion above in 3[a]), the proposed project would be consistent with the AQMP, which is intended to bring the Basin into attainment status for all criteria pollutants.<sup>3</sup> In addition, the mass regional emissions calculated for the proposed project, presented earlier in Table 1, are less than all applicable SCAQMD daily significance thresholds. As such, cumulative impacts would be less than significant, and no mitigation measures are necessary.

As discussed above in 3(a), the proposed project is not anticipated to result in substantial pollutant concentrations. The greatest potential for TAC emissions would be related to diesel particulate emissions from heavy equipment during site grading. SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue because of the short-term nature of construction activities. Construction activities associated with the project would be sporadic, transitory, and short term in nature. The assessment of cancer risk is typically based on a 70-year exposure period. Construction is expected to take

---

<sup>3</sup> State CEQA Guidelines Section 15064(h)(3) states "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency."

less than a year to complete. Because exposure to diesel exhaust would be well below the 70-year exposure period, construction of the project is not anticipated to result in an elevated cancer risk to exposed persons because of the short-term nature of construction. As such, project-related toxic emission impacts during construction would not be significant.

With respect to long-term project operations, no meaningful source of TAC emissions would occupy the project site because operations would be limited to periodic worker trips and electricity (which would be generated off-site) consumption. As such, there would be no potential for meaningful TAC emissions. Impacts would be less than significant, and no mitigation measures are required.

Reference: 48

### Odors

According to SCAQMD's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project does not include any uses identified by SCAQMD as being associated with odors and therefore would not produce objectionable odors.

Odors resulting from construction of the proposed project are not likely to affect a substantial number of people because construction activities usually do not emit offensive odors. Potential odor emitters during construction activities include asphalt paving and the use of architectural coatings and solvents. SCAQMD Rules 1108 and 1113 limit the amount of reactive organic compound (ROC) emissions from cutback asphalt and architectural coatings and solvents, respectively. Given mandatory compliance with SCAQMD rules, no construction activities or materials are proposed that would create a significant level of objectionable odors. As such, potential impacts during short-term construction would be less than significant. No mitigation measures are required.

Reference: 48

## D. Biological Resources

The project is located within an urban area of the City of Los Angeles. The term “study area” refers to the project site plus an additional 500-foot buffer area surrounding the project site (66.44 acres). Within the study area, the LA River is completely concrete lined. During a biological survey visit conducted on June 18, 2012, the LA River contained a small flow (approximately 10 to 12 inches in depth) within a shallow low-flow channel. The LA River is a potential USACE and RWQCB jurisdictional water and a potential California Department of Fish and Wildlife (CDFW) jurisdictional feature. Minimal deposition or vegetation is

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

present within the river. One special-status species was determined to be present within the 500-foot buffer area: southern California black walnut (*Juglans californica*). This tree is a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) List 4.2 species, a species of local concern in the Los Angeles region, and a City of Los Angeles protected tree. The Interpretive Nature Walk Area within the State Park contains several individuals of planted western sycamore and coast live oak, which are also designated as City of Los Angeles protected trees. Because the project would not result in the removal of any trees or construction activities in close proximity to the trees, the project will not impact any City of Los Angeles protected trees.

As designed, the project will permanently impact 6.24 acres of land consisting of 3.77 acres of developed lands and 2.47 acres of the LA River area mapped as open water. Impacts to developed lands, including parts of the concrete river channel and water wheel site, do not affect any protected biological resources and impacts are not significant. As described in Appendix A, the LA River area impacted by the project is not a federally protected wetland. However, the USACE, RWQCB and CDFW have jurisdictional permitting authority over activities in open water and streambeds within the LA River. After consultation with the permitting agencies, if the agencies determine that these activities would result in significant impacts to jurisdictional waters, then compensation for these impacts may be required and would be specified and approved prior to the issuance of a USACE 404 permit, RWQCB 401 permit and a CDFW 1602 streambed alteration agreement.

Of the 28 special-status wildlife species evaluated, six species were determined to have a moderate potential to occur within the study area: American peregrine falcon (*Falco peregrinus anatum*, Fully Protected), big free-tailed bat (*Nyctinomops macrotis*, Species of Special Concern [SSC]), pallid bat (*Antrozous pallidus*; SSC), pocketed free-tailed bat (*Nyctinomops femorosaccus*; SSC), western mastiff bat (*Eumops perotis californicus*; SSC), and western yellow bat (*Lasiurus xanthinus*; SSC). The study area also contains vegetation and structures that provide suitable nesting habitat for a variety of nesting birds including raptors and passerines. Mitigation measures BIO-1 and BIO-2 would offset potential indirect or direct impacts on special-status species or resources and ensure that the impacts on special-status biological resources would be less than significant pursuant to CEQA.

#### E. Cultural Resources

Initial screening determined that the proposed project would result in impacts that would be less than significant with implementation of mitigation measures (see Appendix A). Installation of the proposed water wheel, alteration of the LA River's concrete channel walls and river bottom, and installation of an inflatable dam would result in no direct impacts related to the significance of the North Broadway Bridge or the LA River as historical resources. No known

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

archaeological or other unique cultural resources are known to exist on the site. If any items of archaeological, paleontological, or cultural significance are discovered during construction, applicable laws, regulations, City standards, standard operating procedures, and mitigation measures CR-1, CR-2, and CR-3 would avoid any significant impacts.

F. Geology and Soils

Initial screening determined that the proposed project would result in a less-than-significant impact with respect to geology and soils with mitigation (see Appendix A). The project site is located in a seismically active region and within an area identified by the California Geological Survey as being potentially susceptible to soil liquefaction.

A geotechnical investigation report was prepared to develop geotechnical input for final design of the proposed project structures and to investigate the potential for soil liquefaction to impact these structures. Finding that there is the potential for isolated soil liquefaction in the design seismic event the geotechnical report assessed the potential consequences of this liquefaction including providing estimates of settlement. The report concluded that with appropriate design this hazard can be successfully mitigated. Therefore, risks associated with geology and soils would not be substantial with implementation of mitigation measure GEO-1, related to soil liquefaction and based on the April 2013 geotechnical report.

This potential liquefaction hazard can be mitigated effectively using common place foundation design features which will be incorporated in the design of the final structures. The process of selection of design features will be “performance-based” in that the project geotechnical engineer and structural engineer will work together to understand the response of the proposed construction to the design seismic event including the effects of liquefaction. Within this framework the performance (i.e. physical damage) of the proposed structures under the anticipated seismic loading including liquefaction will be evaluated. This evaluation will be an iterative process with additional liquefaction mitigation measures (e.g. pile foundations, stiffened structural elements) added as necessary to achieve the desired structural performance.

This process will take place in conformance with California Building Code seismic design standards. This process will take place in conformance with the 2010 California Building Code (or the currently applicable building code at the time of the design), including, but not limited to, Seismic Design Standards Sections 1604.10 (wind and seismic detailing), 1605.3 (load combinations), and 1613 (earthquake loads) and Chapter 18 (Soils and Foundations).

G. Greenhouse Gas Emissions

State CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from greenhouse gas (GHG) emissions,

and Section 15064.4(a) provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. State CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

There are currently no adopted quantitative thresholds relevant to the project. The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. SCAQMD has adopted a 10,000-metric-ton (MT) significance threshold level for industrial facilities where SCAQMD is the lead agency. However, this 10,000 MT significance threshold level is not applicable to the proposed project because the project is not an industrial facility. Although SCAQMD considered a 3,000 MT significance threshold level for commercial/residential projects, no threshold has been adopted to date. Other quantitative thresholds adopted or recommended by other public agencies or recommended by experts throughout the state include the 900 MT threshold level contained within the California Air Pollution Control Officers Association's (CAPCOA's) *CEQA and Climate Change* report (Reference: 42). CAPCOA's 900 MT threshold level is the lowest quantitative threshold within the state. Thus, for purposes of this analysis, both direct and indirect GHG emissions from the project are discussed with respect to CAPCOA's 900 MT threshold level.

Note that GHG emissions and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (Reference: 42). Therefore, in accordance with scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of project-related GHG emissions.

Project construction would generate GHG emissions through the use of on-site heavy-duty construction equipment. Off-site vehicle trips by construction workers as well as haul/delivery truck trips to and from the project site would also generate GHG emissions during project construction. Following construction, operations would require periodic maintenance trips by workers as well as a minimal amount of electricity consumption. An estimate of project GHG emissions during construction and operations is provided in Table 3. Consistent with CAPCOA and SCAQMD draft guidelines, construction emissions are summed and amortized over a 30-year project life and then added to operational emissions. As shown in Table 3, the proposed project's total and amortized GHG emissions during construction would be far below the 900 MT carbon dioxide equivalent (CO<sub>2</sub>e) threshold. Consequently, the impact of construction- and

operations-related emissions from the project is considered less than significant.

No mitigation measures are necessary.

**Table 3 – Estimate of Construction Greenhouse Gas Emissions (metric tons)**

| <b>Emission Source</b>   | <b>Total CO<sub>2</sub>e Emissions (Metric Tons)</b> |
|--|--|
| <b>Construction</b>  |  |
| Mobilization   | 34   |
| Waterwheel Pit/Jacking Shaft   | 89   |
| Intake Shaft   | 95   |
| Outlet Shaft   | 141  |
| MBTM Tunneling – Intake  | 10   |
| Installation of Inflatable Dam   | 2  |
| Wheel Foundation and Raceway   | 2  |
| MBTM Tunneling – Outlet  | 32   |
| Install Wheel  | 11   |
| Landscape Install  | 2  |
| <b>Total Construction Emissions</b>  | <b>418</b>   |
| <i>30-year Amortized Total</i>   | <i>14</i>  |
| <b>Operations</b>  |  |
| Total Operations   | 423  |
| Total Operations plus Amortized Construction   | 437  |
| CAPCOA Threshold   | 900  |
| <b>Exceed Threshold?</b>   | <b>No</b>  |
| Note: Operational GHG emissions assumes 600,000 kilowatt hours of energy use annually.                       |  |
| Source: ICF International, 2013; CalEEMod output sheets provided in air quality and climate change appendix. |  |

#### H. Hazards and Hazardous Materials

Initial screening determined that the proposed project would cause no impact or a less-than-significant impact (please refer to Appendix A). A search of available environmental records was conducted on June 19, 2012, by Environmental Data Resources (EDR) for 1745 North Spring Street, Los Angeles, California 90012. The project site was not listed in any of the databases searched by EDR. Furthermore, the project site is not listed in the State Water Resources Control Board's GeoTracker system, which includes leaking underground fuel tank sites, or as part of the Spills, Leaks, Investigations, and Cleanups Program; the Department of Toxic Substances Control's EnviroStor Data Management System, which includes Cortese sites; or the EPA's database of regulated facilities.

Reference: 35 (EDR).

I. Hydrology and Water Quality

Initial screening determined that the proposed project would result in a less-than-significant impact on hydrology and water quality with mitigation (please refer to Appendix A). The diversion site, being within the LA River, which was designed as a flood control channel, is by necessity within a Special Flood Hazard Area subject to a 1% annual chance of flooding. However, the water wheel site is located within the Federal Emergency Management Agency's (FEMA's) unshaded Zone X (Reference: 34), which is defined as an area outside the 0.2% annual chance floodplain (i.e., 500-year floodplain). All proposed designs would be approved by USACE through the Section 408 permit process. It is anticipated that the proposed project would qualify for a Minor 408 because it is not expected to alter the hydraulic capacity of the LA River permanently. As part of the permitting process, USACE's existing Hydrologic Engineering Center-River Analysis System (HEC-RAS) model, which is used by FEMA to determine flood hazard areas, would be used to evaluate the hydrologic impacts of the project. All structures or other channel alterations proposed as part of the project will be incorporated into the model by modifying or adding channel cross sections in the area of the project. The model will then be run using the 50-year design flow provided in the existing model, and resulting water surface elevations will be compared to existing conditions. Project designers will work closely with USACE staff to ensure the modeling methodology is rigorous and that the final design produces modeling results that demonstrate that the project will not reduce the hydraulic functionality of the channel, thereby ensuring that they would not result in changes to the water surface elevation during flood conditions. Potential impacts related to impeding or redirecting floodflows would be less than significant.

Construction-period activities could generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the receiving water quality. The discharge of contaminated groundwater collected through dewatering activities also has the potential to contribute to increased pollutant loads in receiving waters. However, the project would implement best management practices (BMPs) to comply with the standards outlined in the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permits for Discharges of Stormwater Associated with Construction Activity (Order No. 2009-0009-DWQ) and Discharges of Groundwater from Construction Dewatering to Surface Waters (Order No. R4-2008-0032-WDR). Typical BMPs for construction dewatering include infiltration of clean groundwater, on-site treatment using suitable treatment technologies, transport off-site for sanitary sewer discharge with local sewer district approval, or use of a sedimentation bag for small volumes of localized dewatering. These BMPs, along with the construction BMPs outlined in mitigation measure HYD-1, would avoid or minimize potential

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

construction impacts on water quality. As such, impacts would be less than significant with mitigation.

Operation of the proposed project has the potential to introduce water contaminants from minor maintenance activities. All materials would be handled in accordance with applicable regulations to prevent significant hazards to the public or the environment. As such, operations of the proposed project would result in water quality impacts that would be less than significant.

All proposed designs would be approved by USACE through the Section 408 permit process. It is anticipated that this project will qualify for a Minor 408 because it is not expected to alter the hydraulic capacity of the river permanently.

J. Land Use and Planning

The project site is within the Central City North Community Plan area. The proposed project is consistent with the community plan's policies related to the preservation and enhancement of existing recreational facilities and park space. The proposed project would not physically separate an established community, nor would it conflict with any habitat conservation plan or natural community conservation plan. The land use designations of the project site are Public Facilities, with corresponding zoning of PF-1XL, and Open Space, with the corresponding zoning of OS-1XL. Such zoning allows public facility uses as well as joint public and private development uses in even the most restrictive adjoining zones, including the adjacent OS zone. This zone allows recreational facilities by right, including aesthetic enhancements. Certain public service uses in the PF zone are allowed by Conditional Use Permit (CUP) only, including appurtenant structures adjacent to covered and uncovered reservoirs, such as water treatment facilities, water pumping facilities, water distribution facilities, and water filtration plants. However, the utilitarian functions of the proposed project (i.e., to divert and convey water as well as provide water treatment for non-potable park use) are not proposed at the scale or intensity that would require approval by CUP.

The proposed project is also located within the Los Angeles River Revitalization Master Plan area and consistent with the plan's vision, including the proposed placement of inflatable rubber dams along the river for aesthetic and/or recreational purposes where prudent (Los Angeles River Revitalization Master Plan, p. 4-16). Further, the proposed project is consistent with the Cornfield/Arroyo Seco Specific Plan, which would allow the project by administrative approval. Therefore, impacts related to land use and planning would be less than significant.

#### K. Mineral Resources

Initial screening determined that the proposed project would result in no impacts on mineral resources of regional or statewide importance because the project site is located in an urbanized area with no such mineral resources available (please refer to Appendix A).

#### L. Noise

The proposed project would result in increased noise levels associated with excavating the site and building the structure, which could increase ambient noise levels at receivers in the immediate area surrounding the project. Construction of the proposed project would take approximately 9.5 months to complete.

Construction noise levels<sup>4</sup> would be as high as 80 A-weighted decibels (dBA), maximum sound level ( $L_{max}$ ), at the closest building façade, which is located 100 feet from the project site. Noise levels of this magnitude would result in a temporary increase in ambient noise levels in the immediate area surrounding the project site. Construction noise at park areas on the east side of the LA River, across from the project site, would be overshadowed by existing traffic noise on North Broadway and North Spring Street.

The City's Municipal Code restricts construction to the hours between 7 a.m. and 9 p.m. The proposed project would most likely result in a temporary increase in ambient noise levels in the immediate area surrounding the project site. However, the Bureau of Engineering's Standard Project Specifications for Public Works Construction is designed to comply with the City's General Plan Noise Element and related Municipal Code Noise Ordinance. Given that the proposed project would be implemented in accordance with these regulations, construction-related noise impacts would be less than significant.

Construction activities associated with the project could generate groundborne vibration from both impact pile driving and the use of heavy equipment, including a tunnel-boring machine (TBM). Groundborne vibration could be intermittently perceptible at commercial structures adjacent to the project site. However, these effects would be temporary and short term and would cease once project work is complete. Groundborne vibration from construction would not exceed building damage thresholds and would not result in perceptible vibration at local residences. Impacts due to groundborne vibration would be less than significant.

A control building and the water wheel would be permanent features at the project site. Neither of these components would result in a substantial increase in ambient noise levels in the project vicinity.

---

<sup>4</sup> Federal Transit Administration (FTA) methods used for evaluating construction noise and a list of typical construction equipment.

M. Population and Housing

Initial screening determined that the proposed project would result in no impact with respect to population and housing (please refer to Appendix A). The proposed project would not directly increase the project area's population. However, an objective of the project is to encourage revitalization of the area through environmentally friendly artistic improvements. Therefore, the project could indirectly induce business development and population growth. The proposed project would involve construction and operation of a water wheel and appurtenant structures to divert water from the LA River. The project would not include the construction of homes or businesses. Therefore, the project would not induce population growth or displace any residents and would result in no impact with respect to population and housing.

N. Public Services

Initial screening determined that the proposed project would result in no impacts related to public services (please refer to Appendix A). The project would not involve housing a permanent residential population and, therefore, would not result in an increase in demand for emergency services, schools, parks, or other public services.

O. Recreation

Initial screening determined that the proposed project would result in no significant impact with respect to recreation (please refer to Appendix A). Minor impacts would occur to the State Park users during construction; however, these impacts would be temporary. Furthermore, it is anticipated that the State Park would be closed during the water wheel's construction period, thereby allowing construction of elements of its Master Plan. The purpose of the proposed project is to enhance pedestrian connections between the surrounding community, the State Park, and the LA River as well as provide a useful water source (non-potable irrigation) for the State Park. Furthermore, the project would not involve the construction of housing and, therefore, would not increase the usage of existing recreational facilities or require the construction of new recreational facilities.

P. Transportation/Traffic

During construction of the project, additional traffic would be generated as vehicles haul debris and soil or deliver materials to the site and as construction workers travel to and from the area. Given the relatively short duration of the construction period and small scale of the work, construction of the project would not result in a substantial increase in traffic that would significantly reduce the effectiveness of the transportation network in the vicinity of the project. During installation of the delivery pipe from the project site to the State Park, Baker Street may be partially closed for up to 3 days. Given the existing traffic flow and adjacent uses along this segment of Baker Street, the temporary lane closure is not expected to affect

traffic operations significantly. In addition, the applicant is committed to implementing construction traffic controls as required by the *Work Area Traffic Control Handbook* (Reference 2). Therefore, traffic impacts related to construction of the proposed project would be less than significant.

Because one of the project's purposes is to create an aesthetic focal point for the surrounding neighborhood, operation of the proposed project is expected to attract a small number of visitors, potentially from the neighborhood or the adjacent State Park. To estimate the number of vehicle trips that may be generated by the proposed project, the trip generation rate for land uses within a city park published by the Institute of Transportation Engineers (2008) was used. It is estimated that the proposed project could generate about six trips per day, assuming the project is similar to a city park with one picnic area. Parking for visitors would be provided on Baker Street, which, after consideration of existing demand, is expected to have an adequate parking supply. Given the existing traffic flow and adjacent uses along this segment of Baker Street, the small increase in traffic volumes would not reduce the overall effectiveness of the transportation network. Because the number of trips generated by the water wheel project would be below all of the thresholds identified by City Congestion Management Program (CMP) guidelines, a more in-depth analysis of traffic conditions is not required. Impacts associated with operation of the proposed project would be less than significant.

#### Q. Utilities and Service Systems

Initial screening determined that the proposed project would result in a less-than-significant impact with respect to utilities and service systems (please refer to Appendix A). The LA River is not a source of potable water, and enough water is available to meet the requirements of the project. The proposed project would not disrupt existing utilities and service systems or result in an increased demand for utilities, requiring the construction of new facilities or infrastructure.

#### R. Mandatory Findings of Significance

Based on the foregoing, it has been determined that:

The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory with the implementation of mitigation measures BIO-1, BIO-2, CR-1, CR-2, CR-3, GEO-1, and HYD-1.

The project does not have impacts that would be individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of the project are considerable when viewed in connection with the effects of past projects,

the effects of other current projects, and the effects of probable future projects. The project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

The project does not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

## V. MITIGATION MEASURES

The following describes the mitigation measures that, if incorporated into the project, would reduce an effect to less than significant and briefly explains how each mitigation measure would reduce the effect to a less-than-significant level (mitigation measures from earlier analyses may be cross-referenced).

**BIO-1:** If construction occurs during the nesting period (February 15 through September 15, or as otherwise defined by the California Department of Fish and Wildlife), a pre-construction nesting bird survey must be performed by a qualified biologist. The survey shall be performed within seven days prior to any ground disturbing activities. If active nests are found, the following buffers are recommended to be used until a qualified biologist determines that nesting activities have ceased: 500 feet for raptors and any listed species, 100 feet for all other bird species unless otherwise authorized by CDFW. This will provide adequate protection to native nesting birds for the proposed project under MBTA and California Fish and Game Code. If there is no nesting within 100 feet of the limits of disturbance (500 feet for raptors), no further action is necessary. If project-related ground disturbance occurs outside of the nesting season, no nesting bird survey is necessary.

**BIO-2:** If work is expected to occur within 100 feet of trees or other structures with bat roost potential during the maternity season (April 15–August 15), a qualified bat biologist should conduct a one night emergence survey during acceptable weather conditions (no rain or high winds, night temperatures above 45°F) or if conditions permit, physically examine the tree or structure for presence or absence of bats (such as with lift equipment) before the start of construction. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the maternity season when young are self-sufficiently volant. If trees or structures with bat roost potential require removal during the winter months when bats are in torpor (October 31--February 15, but is dependent on specific weather conditions), a qualified bat biologist shall physically examine the tree or structure (if conditions permit) for presence or absence of bats (such as with lift equipment) before the start of construction. If the tree or structure is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.

**CR-1:** A qualified professional archaeologist shall monitor the initial phase of ground-disturbing activities of the project. If buried cultural resources—such as historic debris, building foundations, non-human bone, flaked or ground stone—are discovered during ground-disturbing activities, work shall stop in that area and within 50 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation. If, during cultural resources monitoring, the qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the qualified archaeologist can specify that monitoring be reduced or eliminated.

**CR-2:** Project plans shall specify that a qualified paleontologist shall monitor initial ground disturbance at depths greater than 10 feet below ground surface. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, the sediments being monitored were previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not present or, if present, determined by qualified paleontologic personnel to have a low potential to contain fossil resources. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage. A report of findings, with an appended itemized inventory of specimens, shall be prepared and shall signify completion of the program to mitigate impacts on paleontological resources.

**CR-3:** Project plans shall specify that should human remains be uncovered during construction, construction shall halt in the area of discovery, the area shall be protected, and no further disturbance shall occur, as specified by State Health and Safety Code Section 7050.5. The county coroner shall determine the origin and disposition of the human remains pursuant to Public Resources Code 5097.98. If the coroner recognizes the remains to be Native American, he or she shall contact the California Native American Heritage Commission (NAHC) within 24 hours. For remains of Native American origin, no further excavation or disturbance shall take place until the most likely descendant of the deceased Native American(s) has made a recommendation to the landowner or the person responsible for the excavation work regarding means of treating or disposing of the human remains and any associated grave goods, with appropriate dignity, as provided in Public Resources Code Section 5097.9. In consultation with the most likely descendant, the project archaeologist and the project proponent shall

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

determine a course of action regarding preservation or excavation of Native American human remains, and this recommendation shall be implemented expeditiously. If the NAHC is unable to identify a most likely descendant or the descendant fails to make a recommendation within 48 hours after being notified by the commission, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, which shall be submitted to the NAHC for review prior to implementation.

**GEO-1:** Potential liquefaction hazards shall be mitigated effectively using common place foundation design features which will be incorporated in the design of the final structures as discussed in the geotechnical investigation report. The retaining wall type and foundation system selected during design will control precisely which design features among many possible features will be selected.

The process of selection of design features will be “performance-based” in that the project geotechnical engineer and structural engineer will work together to understand the response of the proposed construction to the design seismic event including the effects of liquefaction. Within this framework the performance (i.e. physical damage) of the proposed structures under the anticipated seismic loading including liquefaction will be evaluated. This evaluation will be an iterative process with additional liquefaction mitigation measures (e.g. pile foundations, stiffened structural elements) added as necessary to achieve the desired results.

This process will take place in conformance to the with California Building Code seismic design standards.

**HYD-1:** Consistent with the requirements of the statewide Construction General Permit, the project applicant shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts on surface water quality through the project construction period. The SWPPP shall be designed based on the assessed Project Risk Level to address the following objectives: (1) all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled; (2) where not otherwise required to be under a RWQCB permit, all non-stormwater discharges are identified and eliminated, controlled, or treated; (3) site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best/Best Conventional Pollutant Control Technology (BAT/BCT) standard; (4) calculations and design details as well as BMP controls for site run-on are complete and correct; and (5) stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

The SWPPP shall be prepared by a Qualified SWPPP Developer. The SWPPP shall include the minimum BMPs required in Attachment D for the assessed Project Risk Level. The Project Risk Level would be determined as part of the Notice of Intent for coverage under the Construction General Permit. These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, infiltration and runoff controls, and BMP inspection/maintenance/repair activities. The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations and, as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters (receiving water monitoring is only required for some Risk Level 3 dischargers). A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities. If the project is Risk Level 2 or 3, the project applicant shall also prepare a Rain Event Action Plan as part of the SWPPP.

The following are the types of BMPs that shall be implemented for the project:

- Erosion Control BMPs
- Sediment Control BMPs
- Wind Erosion Control BMPs
- Tracking Controls
- Non-Stormwater Controls
- Waste Management and Materials Pollution Control BMPs

VI. NAME OF PREPARER

**ICF International**

Lee Lisecki  
Mike Amling  
Jonathan Riker  
Namrata Cariapa  
Carson Anderson  
Keith Cooper  
Matthew McFalls  
Kathleen Dale  
R.C. Brody  
Paul Schwartz  
Daniel Cardoza  
Mark Robinson

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

Peter Moruzzi  
Jason Volk  
Kai-Ling Kuo  
John Mathias  
Brittany Buscombe

VII. DETERMINATION – RECOMMENDED ENVIRONMENTAL DOCUMENTATION

A. Summary

The proposed project would involve construction and operation of a water wheel, loosely modeled after the historic wheel that existed near the project location and would include excavation of a 1,300-cubic-yard pit and maintenance area for installation of the water wheel. It would also include construction of a side channel to the LA River, connecting the LA River to the water wheel pit and installation of an inflatable dam within the LA River channel, creating a water impoundment area upstream of the proposed inflatable dam. The purpose of the proposed project is to physically divert water from the LA River and create an aesthetic/educational statement, showing that the LA River can be used as a source of water. Additional purposes include enhancing connections between the surrounding community and the LA River; and providing a viable long-term non-potable irrigation water source for the State Park and other local demands. Initial screening determined a potential for significant environmental impacts under CEQA to the following:

- Archaeological and paleontological resources,
- Biological resources,
- Geological resources, and
- Hydrological resources.

However, with the implementation of mitigation measures specified above, the environmental impact would be considered less than significant.

B. Recommended Environmental Documentation

On the basis of this initial evaluation:

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

Prepared By: Jonathan Riker  
ICF International

Approved By: Gary Lee Moore, P.E.  
City Engineer

By: James E. Doty,  
Environmental Affairs Officer  
Environmental Management Group

[PREPARERS' INITIALS:document file name]

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

VIII. REFERENCES

The following sources were used in the preparation of this document. Sources not available via the Internet are available by appointment for review at the offices of the Bureau of Engineering, 1149 S. Broadway, Suite 600, Los Angeles.

1. American Public Works Assoc. S. California Chpt. *Standard Specifications for Public Works Construction*. [Std Specs]
2. American Public Works Assoc. S. California Chpt. *Work Area Traffic Control Handbook*. [WATCH]
3. California Building Standards Commission, 1994. *Uniform Building Code*, [California Code of Regulations, Title 24, Part 2]. Table 18-1-B. [UBC]
4. California Dept. of Conservation, 1997. *California Agricultural Land Evaluation and Site Assessment Model*. [Agric Land Eval]
5. California Dept. of Conservation, Div. of Mines and Geology. *Geologic Map of California: Los Angeles Sheet*. [Geol Map LA]
6. California Dept. of Conservation, Div. of Mines and Geology. *Official Map of Seismic Hazard Zones*. [Seismic Zones] Available online at <http://gmw.consrv.ca.gov>.
7. California Dept. of Conservation, Div. of Mines and Geology, Special Publication 42, *Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Map*. Revised 1997 and Supplemented 1999. [CDC 42]. Available online at <http://www.consrv.ca.gov/CGS/rghm/ap/index.htm>.
8. California Dept. of Conservation, Div. of Land Resource Protection, Farmland Mapping and Monitoring Program. Important Farmland in California, January 2009. [Farmland Map]. Available online at [ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2006/fmmp2006\\_08\\_11.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2006/fmmp2006_08_11.pdf).
9. California Dept. of Fish and Game. *California Natural Diversity Database*. [CNDDDB]. Available online at [www.dfg.ca.gov/whdab/cnddb.htm](http://www.dfg.ca.gov/whdab/cnddb.htm).
10. California Dept. of Fish and Game. *Biogeographic Information & Observation Database*. Available online at <http://bios.dfg.ca.gov/>. [BIOS]
11. California Dept. of Fish and Game. *Laws and Regulations Directing Environmental Review and Species Take Programs*. Available online at <http://www.dfg.ca.gov/wildlife/nongame/regcode.html>.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

12. California Dept. of Parks and Recreation, Office of Historic Preservation. *California Historical Resources Information System*. South Central Coastal Information Center. [CHRIS]
13. California Dept. of Toxic Substances Control. *EnviroStor Database*. [EnviroStor] Available online at <http://www.envirostor.dtsc.ca.gov/public/default.asp>.
14. California Secretary for Resources. *Guidelines for Implementation of the California Environmental Quality Act*. Title 14. California Code of Regulations. Chapter 3. [CEQA Guidelines] Available online at <http://www.califaep.org>.
15. California State Water Resources Control Board, *GeoTracker Database*. Available online at <http://geotracker.swrcb.ca.gov>.
16. City of Los Angeles, City Council. *Municipal Code*. [LAMC] Available online at [http://www.amlegal.com/los\\_angeles\\_ca/](http://www.amlegal.com/los_angeles_ca/).
17. City of Los Angeles, City Council. *Protected Tree Ordinance*. Los Angeles Municipal Code. Section 1. Subdivision 12 of Subsection A of Section 12.21. [Tree Ord.] Available online at [http://www.amlegal.com/los\\_angeles\\_ca/](http://www.amlegal.com/los_angeles_ca/).
18. City of Los Angeles, Dept. of City Planning. *General Plan*. Including community plans and technical elements. [General Plan] Available online at <http://planning.lacity.org/>.
19. City of Los Angeles. Dept. of City Planning. General Plan. Safety Element. Inundation and Tsunami Hazard Areas map (Exhibit G) (adopted by City Council November 26, 1996). [Inundation Map] Available online at <http://planning.lacity.org/>.
20. City of Los Angeles, Dept. of City Planning. *Zoning Information and Map Access System (ZIMAS)*. Available online at <http://zimas.ci.la.ca.us>.
21. City of Los Angeles, Dept. of Environmental Affairs. *GREEN LA. An Action Plan to Lead the Nation in Fighting Global Warming*. May 2007. [GREEN LA] Available online at [http://www.ci.la.ca.us/EAD/pdf/GreenLA\\_CAP\\_2007.pdf](http://www.ci.la.ca.us/EAD/pdf/GreenLA_CAP_2007.pdf).
22. City of Los Angeles, Dept. of Environmental Affairs. *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles*. 2006. [Thresholds] Available online at <http://www.ci.la.ca.us/EAD/programs/thresholdsguide.htm>.
23. City of Los Angeles, Dept. of Public Works, Bureau of Engineering. *Additions and Amendments to the 2006 Edition and 2008 Cumulative Supplement of the Standard Specifications for Public Works Construction*. Available online at <http://eng.lacity.org/techdocs/speclibrary/index.htm>.
24. City of Los Angeles, Dept. of Public Works, Bureau of Engineering. *Standard Plans*. [Std Plans] Available online at <http://eng.lacity.org/techdocs/stdplans/>.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

25. City of Los Angeles, Dept. of Public Works. *Tree Removal Mitigation Agreement Between the Bureaus of Engineering and Street Maintenance*. Adopted by the Board of Public Works October 15, 1990. [BOE/BSS Tree Policy]
26. City of Los Angeles, Dept. of Public Works, Bureau of Engineering. *NavigateLA*. Available online at <http://boemaps.eng.ci.la.ca.us>.
27. City of Los Angeles, Dept. of Public Works, Bureau of Engineering. *Policies for the Installation and Preservation of Landscaping and Trees on Public Property*. Special Order SO18-0372. Adopted by City Council September 21, 1971. [Tree Policy] Available online at [http://eng.lacity.org/techdocs/sporders/index.cfm?dsp\\_year=1972](http://eng.lacity.org/techdocs/sporders/index.cfm?dsp_year=1972).
28. City of Los Angeles, Dept. of Recreation and Parks. *Urban Forest Program – Revised October 2004*. Available online at <http://www.laparks.org/dos/forest/urbanforestprogram.htm>.
29. County of Los Angeles Department of Public Works, *2007 Annual Report on the Countywide Siting Summary Plan and Countywide Siting Element*, June 2008. Available online at <http://dpw.lacounty.gov/swims/default.asp>.
30. Dibblee, Thomas W. Jr., *Geologic Map of the Hollywood & Burbank Quadrangle*.
31. South Coast Air Quality Management District, 1993. *CEQA Air Quality Handbook*. [AQMD Handbook]
32. U.S. Dept. Interior Fish & Wildlife Service. *National Wetlands Inventory*. Overlays for U.S. Dept. Interior Geological Survey. 7.5-minute Map Series (Topographic). [Wetlands Map]
33. U.S. Dept. Interior Geological Survey. *7.5-minute Map Series* (Topographic). [USGS Quad]
34. U.S. Federal Emergency Management Agency. *Flood Insurance Rate Maps*. Community Panel number 060137 00\_\_ C. [FIRM] Available online at <http://www.cityofla.org/>.
35. Upper Los Angeles River Area Watermaster. Spring 1990. *Upper Los Angeles River Area Groundwater Contour Map*. [Groundwater Map]
36. Dibblee and Ehrenspeck [1989], *Geologic Map of Los Angeles Quadrangle*, Geologic Map, Dibblee Geological Foundation, Santa Barbara, California.
37. Geosyntec [2013] *Focused Geotechnical Investigation Report*. La Madre: the Los Angeles River Water Wheel Project, Los Angeles, California,” dated 18 April 2013.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

38. Goldberg, S. K, B. J. Adams, C. Denardo, S. A. Williams, M. J. Wyss, M. C. Robinson, J. A. Onken, C. M. Inoway, M. C. Horne, K. Moslak, S. Griset, V. S. Popper, S. L. Martin, M. S. Shackely, T. M. Origer, J. L. McVickar, and Beta Analytic Inc. 1999 *The People of Yaanga?: Archaeological Investigations at CA-LAN-1575/H*, Metropolitan Water District of Southern California Headquarters Facilities Project. Prepared by Applied EarthWorks, Inc. Hemet, California. Submitted to Metropolitan Water District of Southern California, Los Angeles.
39. McLeod, Samuel A. 2012, *Paleontological Resources for the proposed Water Wheel Project*, Los Angeles, California. Letter Report from the Natural History Museum of Los Angeles County, 20 September 2012.
40. Peak & Associates 1992. *Consolidated Report: Cultural Resources Studies for the Proposed Pacific Pipeline Project*.
41. Sampson, Michael and Mary Garrett 2010 *Site Record Update: CA-LAN-3120*. On file at the South Central Coastal Information Center, CSU Fullerton.
42. California Air Pollution Control Officers Association. 2008. *CEQA and Climate Change*.
43. California Native Plant Society, n.d. *Inventory of Rare and Endangered Plants*.
44. City of Los Angeles Department of Public Works. 2005. *Integrated Resources Plan Draft Environmental Impact Report*. (SCH No. 2004071091). Los Angeles, CA. November.
45. City of Los Angeles. 2007. *Los Angeles River Revitalization Master Plan*, p. 4-16. April.
46. Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. (DOT-T-95-16.) Washington, DC: Office of Planning. Prepared by Harris, Miller, Miller & Hanson, Inc. Burlington, MA.
47. Geosyntec Consultants. 2013. *Hydrology and Water Quality Section for EIR, Water Wheel Project*.
48. ICF International. 2013a. *Air Quality Analysis*.
49. ICF International. 2013b. *Biological Resources and Habitat Assessment*. June 18.
50. Los Angeles River Revitalization Master Plan, p. 4-16:
51. South Coast Air Quality Management District. 2011a. *SCAQMD Rules and Regulations*. Available: <http://www.aqmd.gov/rules/rulesreg.html>. Last Updated: June 9, 2011.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

52. South Coast Air Quality Management District. 2011b. *SCAQMD Air Quality Significance Thresholds*. Available: <<http://www.aqmd.gov/ceqa/handbook/signthres.pdf>>. March.
53. Southern California Association of Governments. 2012. 2012–2035 Regional Transportation Plan.
54. Thalheimer, Erich. 2000. Construction Noise Control Program and Mitigation Strategy at the Central Artery/Tunnel Project. September. *Noise Control Engineering Journal*.
55. U.S. Fish and Wildlife Service. 2013a. *Species Occurrence Database*.
56. U.S. Fish and Wildlife Service. 2013b. *Mapping of Designated Critical Habitat*.
57. Water and Power Associates. n.d. *Zanja Madre – LA's Original Aqueduct*. Available: <<http://waterandpower.org/museum/Zanja%20Madre%20%28Original%20LA%20Aqueduct%29.html>>.

**APPENDIX A**

**ENVIRONMENTAL SCREENING CHECKLIST**

A brief explanation is provided for all answers except “no impact” answers that are adequately supported by the information sources cited following each question. A “no impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects such as the one in question (e.g., the project falls outside a fault rupture zone). A “no impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

| <b>Issues</b>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <b>1. AESTHETICS</b> – Would the project:   |                                |                                       |                                     |                          |
| a) Have a substantial adverse effect on a scenic vista?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project introduces incompatible visual elements within a field of view containing a scenic vista or substantially alters a view of a scenic vista. Reference: 18 (Thresholds A.1 and A.2)</p>   |                                |                                       |                                     |                          |
| <p>Explanation: The proposed project would not have a substantial effect on a scenic vista because there are no officially recognized scenic vistas within the project viewshed. However, the proposed project can be viewed from nearby informal vantage points, including Elysian Park and the adjoining North Broadway Bridge—an engineering structure that is the key visual resource in the project viewshed and a City Historic-Cultural Monument. The bridge’s aesthetic significance derives from its impressive form, scale, and vivid Classical Revival decorative detailing. It also affords balcony-like pop-out viewing positions where pedestrians can step slightly beyond the bridge sidewalks for enhanced viewing opportunities. In addition to the bridge, informal viewing locations are also found within nearby Elysian Park, which is located northwest of the project site. Because of the park’s hilly terrain, there are elevated vantage points within the park that afford 180-degree south-facing views that look out over the project site, a small part of a sweeping panorama. However, the focal points in such views are far-off features, such as the skylines in Boyle Heights (e.g., County/USC Medical Center building grouping) and downtown Los Angeles. The project site occurs in the foreground and mid-frame (as seen from the bridge and park, respectively). Such closer-in foreground and mid-frame views are dominated by utilitarian industrial and public facilities, asphalt-paved roadways, railroad tracks atop gravel-covered surfaces, train catenaries and overhead contact system (OCS) poles, chain link fencing, and the wide expanse of the LA River’s concrete flood control channel. Thus, impacts related to scenic vistas would be less than significant.</p> <p>The North Broadway Bridge, as a visual and historic landmark, draws a small number of sightseers—a viewing group that is considered sensitive. Other sensitive viewing groups include nearby Elysian Park visitors (i.e., within 1,500 feet of the project) at vantage points with south- and southeast-facing views and a small number of residential viewers with south- and southeast-facing views residing at one particular multi-story building on Casanova Street (just north of North Broadway). All other viewing groups, including Metrorail passengers, North Broadway Bridge motorists and pedestrians, and nearby workers in the Gold Line shop and yard, as well as other public facilities workers within the project viewshed, are considered only low to moderately sensitive. Furthermore, residents at the aforementioned Casanova Street location would have highly constrained views of the project and, thus, would be likely to have a lower level of concern about the project’s visual effects.</p> |                                |                                       |                                     |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur where scenic resources within a state scenic highway would be damaged or removed as a result of the proposed project. Reference: 18 (Thresholds A.1 &amp; E.3), 18 (General Plan)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: The project is not proposed in visual proximity to a state scenic highway and would not remove or damage trees, rock outcroppings, or historic buildings. The closest highway, the Arroyo Seco Parkway (State Route 110) falls outside the project viewshed. The highway is approximately 0.6 mile northwest of the project site and screened in visual terms from the project site by both intervening topography and distance. The project calls for excavation within a human-designed setting of low visual quality (e.g., bare ground strewn with gravel and concrete, asphalt-paved surfaces, non-historic buildings of utilitarian design, railroad tracks, and the concrete-paved LA River flood control channel). It would not affect existing features that contribute substantially to visual quality within the viewshed, nor would it contrast sharply with, or obstruct views of, such features.</p> <p>Although there is a park (i.e., State Park) with limited agricultural production to the west (across Baker Street) where fruit and street trees are cultivated in raised beds, this is a visual resource of secondary importance and would not be affected by the proposed project. The key visual resource in the project viewshed is the adjoining North Broadway Bridge. This structure, however, would not be physically altered in any way as a result of the proposed project. Because of the utilitarian character of the project setting beneath the bridge, the proposed project would not change the visual character or quality to any significant adverse degree or block views of the bridge from below. The inflatable dam and intake and discharge openings would appear to be extensions of other flood control and construction activities in and adjoining the river's concrete basin.</p> <p>The water wheel has the potential of becoming a new public art focal point and a visual resource for sightseers when visiting the bridge. Therefore, the water wheel could contribute aesthetic value and serve to enhance visual quality within the viewshed. It would not be a detracting visual element, and therefore, less-than-significant impacts would result.</p> |                                |                                       |                                     |                          |
| <p>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project introduces incompatible visual elements to the project site or visual elements that would be incompatible with the character of the area surrounding the project site. Reference: 18 (Thresholds A.1 and A.3)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: The proposed project would not substantially degrade existing visual character or quality within the project's visual setting. It would neither diminish features that contribute substantially to visual character within the viewshed nor call for the conversion of natural open space. In addition, it would not obstruct views of key visual resources. As discussed in 1(b), the project calls for excavation within a human-designed setting of low visual quality. The project would not affect the site formerly known as "The Cornfield." In addition, the design of the project would be subject to review by the Cultural Affairs Commission, ensuring that the project would be aesthetically compatible with its surroundings in terms of design, materials, scale, and massing. It would also be compatible with visual resources such as the North Broadway Bridge and the nearby agricultural area. It is anticipated that the project key visual component, the water wheel, could become a public art focal point and a new visual resource for sightseers when visiting the bridge. Thus, impacts on the existing visual character or quality of the site and its surroundings would be less than significant.</p>   |                                |                                       |                                     |                          |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|---|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact would occur if the proposed project causes a substantial increase in ambient illumination levels beyond the property line or new lighting to spill over onto light-sensitive land uses such as residential areas, some commercial and institutional uses that require minimum illumination for proper function, and natural areas. Reference: 18 (Thresholds A.4)</p>   |                                |                                       |                          |                                     |
| <p>Explanation: Project lighting features, both during construction and operation, would not be a source of a substantial amount of light. In the event that nighttime lighting is required during the construction period, it would be configured so as to avoid spill effects. New outdoor lighting associated with the water wheel would be limited to the minimum level necessary for safety. It would most likely utilize LED or other comparable lighting technology to minimize energy use and avoid spill light and glare effects. In addition, the water wheel would not be designed with materials or finishes that would produce glare from reflected sunlight. No impacts would occur.</p>  |                                |                                       |                          |                                     |
| <p><b>2. AGRICULTURE AND FOREST RESOURCES</b> – Would the project:</p>  |                                |                                       |                          |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Reference: 14)</p> <p>A significant impact may occur if the proposed project were to result in the conversion of state-designated agricultural land from agricultural use to another non-agricultural use. Reference: 4 (Ag. Land Eval.)</p>   |                                |                                       |                          |                                     |
| <p>Explanation: The project site does not contain designated Farmland. The project site is used for transportation and utility-related non-agricultural activities. The California Farmland Mapping and Monitoring Program designates the project site as a “Z” area, which is not mapped on the Important Farmlands Map for Los Angeles County. The soils on the project site are not associated with Prime Farmland or Farmland of Statewide Importance. Furthermore, the project site is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert such farmland to non-agricultural use, and no impacts would occur.</p> <p>Reference: 8 (Farmland Map).</p> |                                |                                       |                          |                                     |
| b) Conflict with existing agricultural zoning or a Williamson Act contract?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were to result in the conversion of land zoned for agricultural use or protected under a Williamson Act contract.</p>   |                                |                                       |                          |                                     |
| <p>Explanation: The project site and adjacent parcels are not zoned for agricultural uses and not subject to a Williamson Act contract. The proposed project would occur in an area designated for Public Facilities (Reference: 20). The only Williamson Act contract within unincorporated Los Angeles County preserves open space on Santa Catalina Island, which is not within or near the project site. Furthermore, no parcels on the project site or in the vicinity are zoned for agricultural uses. Therefore, the proposed project would not conflict with a Williamson Act contract or existing agricultural zoning, and no impacts would occur.</p> <p>Reference: 8 (Farmland Map).</p>   |                                |                                       |                          |                                     |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|---|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <p>c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Reference: 8</p>  |                                |                                       |                          |                                     |
| <p>Explanation: The project site is located in an urban area in the City of Los Angeles and zoned as an existing public facility. The site is currently asphalt paved. There is no forestland, timberland, or timberland zoned Timberland Production on or near the project site. No impact on forestland or timberland would occur as a result of construction or operation of the proposed water wheel. Therefore, the proposed project would not conflict with existing zoning or cause rezoning of forest or timberland. No impact would occur.</p> <p>Reference: 8 (Farmland Map).</p> |                                |                                       |                          |                                     |
| <p>d) Result in the loss of forestland or the conversion of forestland to non-forest use?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Reference: #?</p>   |                                |                                       |                          |                                     |
| <p>Explanation: Refer to the discussion for 2(c), above. No loss or conversion of forestland would occur as a result of construction or operation of the proposed project. No impact would occur.</p> <p>Reference: 8 (Farmland Map).</p>   |                                |                                       |                          |                                     |
| <p>e) Involve other changes in the existing environment that, because of their location or nature, could result in the conversion of farmland to non-agricultural use?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if a project results in the conversion of farmland to non-agricultural use.</p>   |                                |                                       |                          |                                     |
| <p>Explanation: Refer to the discussion under 2(a) and 2(b), above. The proposed project would not convert farmland or forestland. The project site does not contain any agricultural land. Therefore, the proposed project would not result in any reduction in the amount of agricultural land. No impact would occur.</p> <p>Reference: 8 (Farmland Map).</p>  |                                |                                       |                          |                                     |
| <p><b>3. AIR QUALITY – Would the project:</b></p>   |                                |                                       |                          |                                     |
| <p>a) Conflict with or obstruct implementation of the applicable air quality plan?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the project is inconsistent with or obstructs implementation of the Air Quality Element of the City's General Plan or the Air Quality Management Plan (AQMP). Reference: 18 (Thresholds B.1 to B.3), 31 (AQMD Handbook)</p>  |                                |                                       |                          |                                     |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>Explanation: SCAQMD is required, pursuant to the federal Clean Air Act (CAA), to reduce emissions of criteria pollutants for which the Los Angeles Basin is in nonattainment status (i.e., O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> and Pb). The project would be subject to SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies were based, in part, on regional population, housing, and employment projections prepared by SCAG.</p> <p>A project is consistent with the AQMP if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. The most recent AQMP, which was adopted by the SCAQMD Governing Board on December 7, 2012, incorporates SCAG's 2012–2035 RTP socioeconomic forecast projections of regional population and employment growth. The 2012–2035 RTP projects that the population of the region will grow as approximately 1.5 million new households move to the area between now and 2035. As the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, SCAG addresses regional issues related to transportation, the economy, community development, and the environment. As part of its air quality planning, SCAG has prepared the RCPG, which includes Growth Management and Regional Mobility chapters. These chapters provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the RCPG and AQMP are based, in part, on projections originating with county and city general plans.<sup>5</sup></p> <p>The proposed project, which would occur within the LA River channel, would result in no changes in land use. In addition, changes in population, employment, or the existing or planned transportation network or traffic patterns in the area would not occur. The project is within the Cornfield/Arroyo Seco Specific Plan area, which aims to integrate public art as a means to contribute to the civic and cultural life of the City. As such, the project would be consistent with the existing general plan, and growth projections would, therefore, be accounted for within AQMD attainment forecasts. Project development would not conflict with any air quality management plan, and no impact would occur.</p> <p>Reference: 38, Reference 49.</p> |                                |                                       |                                     |                          |
| <p>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project violates any South Coast Air Quality Management District (SCAQMD) air quality standard. SCAQMD has set thresholds of significance for reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM<sub>10</sub>) emissions resulting from construction and operation in the South Coast Air Basin. Reference: 18 (Thresholds B.1, B.2), 31 (AQMD Handbook)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: Estimated air pollutant emissions during construction and operation would not exceed SCAQMD significance thresholds (see discussion in Section IV).</p>  |                                |                                       |                                     |                          |
| <p>c) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment status under an applicable federal or state ambient air quality standard (this includes releasing emissions that exceed quantitative thresholds for ozone precursors)?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project results in a cumulatively considerable net increase in a criteria pollutant for which the South Coast Air Basin exceeds federal and state ambient air quality standards and has been designated as an area of nonattainment by EPA and/or the California Air Resources Board. The South Coast Air Basin is a nonattainment area for CO, nitrogen dioxide, ozone, PM<sub>10</sub>, and fine particulate matter (PM<sub>2.5</sub>). Reference: 18 (Thresholds B.1, B.2), 31 (AQMD Handbook)</p>  |                                |                                       |                                     |                          |

<sup>5</sup> SCAG serves as the federally designated MPO for the Southern California region.

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>Explanation: Construction and operational emissions of the project would not exceed SCAQMD's thresholds of significance for criteria pollutants. For those emissions generated during construction, the minor generation of criteria pollutants would be temporary and short term in nature (see discussion in Section IV).</p>  |                                |                                       |                                     |                          |
| <p>d) Expose sensitive receptors to substantial pollutant concentrations?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if construction or operation of the proposed project generates pollutant concentrations to a degree that would significantly affect sensitive receptors. Reference: 18 (Thresholds B.1 to B.3)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: As discussed above, the proposed project is not anticipated to result in substantial pollutant concentrations (see discussion in Section IV).</p>   |                                |                                       |                                     |                          |
| <p>e) Create objectionable odors that would affect a substantial number of people?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: During construction, sources of odor are diesel emissions from construction equipment and volatile organic compounds from sealant applications or paving activities. However, these odors would be temporary and localized. Nonetheless, applicable best management practices such as those in SCAQMD Rule 431 (Diesel Equipment) would, in addition to minimizing air quality impacts, help minimize potential construction odors. Reference: 18 (Thresholds B.1 and B.2)</p>   |                                |                                       |                                     |                          |
| <p>Explanation: Refer to Section IV.</p>  |                                |                                       |                                     |                          |
| <p><b>4. BIOLOGICAL RESOURCES – Would the project:</b></p>  |                                |                                       |                                     |                          |
| <p>a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?</p>  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project would remove or modify habitat for any species identified or designated as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulation or by the state or federal regulatory agencies cited. Reference: 18 (Thresholds C)</p>   |                                |                                       |                                     |                          |
| <p>Explanation: ICF International conducted a biological resources and habitat assessment on June 18, 2012 for the proposed project (Reference: 49). The literature review included a review of the U.S. Fish and Wildlife Service (USFWS) Species Occurrence Database (reviewed July 6, 2012 and June 26, 2013,) and the USFWS mapping of designated Critical Habitat (reviewed June 13, 2012 and June 26, 2013) (Reference: 55; 56). The California Natural Diversity Database (CNDDDB) (Reference: 9) and the CNPS Inventory of Rare and Endangered Plants (Reference: 43) were reviewed for the Los Angeles, California (Reference: 33) and surrounding 7.5-minute USGS quadrangles. Several sensitive plant and wildlife species are known to occur within the quadrangle. However, based on known ranges and suitable habitat conditions observed during the site visit, ICF found that only one special status plant species and six special status wildlife species have potential to occur in the project vicinity.</p> <p>The single special-status plant species determined to be present within the study area is the southern California black walnut (<i>Juglans californica</i>). This tree is a CNPS CRPR List 4.2 species, a species of local concern in the Los Angeles region, and a City of Los Angeles protected tree. Individuals of this species are located within Elysian Park and would not be either directly or indirectly altered as a result of project implementation.</p> |                                |                                       |                                     |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|--|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p>Of the 28 special-status wildlife species evaluated, six species were determined to have a moderate potential to occur within the study area: American peregrine falcon (<i>Falco peregrinus anatum</i>, State Fully Protected [FP]), big free-tailed bat (<i>Nyctinomops macrotis</i>) (California Species of Special Concern [SSC]), pallid bat (<i>Antrozous pallidus</i>; SSC), pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>; SSC), western mastiff bat (<i>Eumops perotis californicus</i>; SSC), and western yellow bat (<i>Lasiurus xanthinus</i>; SSC). These species and their potential for occurrence on the project site are discussed below.</p> <p>American peregrine falcon is designated as a State Fully Protected (SFP) species. It was determined that the medium sized buildings and structures within the study area provide suitable nesting and foraging habitat for the species. Furthermore, all developed and undeveloped portions of the study area contain suitable nesting habitat for a variety of avian species, including, but not limited to, those species observed during the habitat assessment. Several bird species including black phoebe, northern rough-winged swallow, barn swallow, and white throated swift were observed nesting and foraging within the LA River area and foraging within the State Park. Black-necked stilt was observed nesting within the LA River during the site visit.</p> <p>The proposed physical improvements and operational aspects of the proposed project would not significantly alter conditions within the project site and study area with respect to suitability of habitat for foraging. Compliance with the established regulatory provisions under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code will ensure that take of a peregrine falcon nest and other nesting birds would not occur.</p> <p>Direct impacts to American peregrine falcon and other nesting bird habitat could occur only if construction activities are scheduled for the bird breeding season (February 15 to September 15). Implementation of a mitigation measure BIO-1 below, a pre-construction nesting survey, would ensure that the project does not result in significant impacts to nesting American peregrine falcon and other nesting birds (Reference: 49). Therefore, the potential for impacts to American peregrine falcon or other protected nesting birds would be less than significant (Reference: 49).</p> <p>Five special-status bat species were determined to have a moderate potential to utilize the study area in some capacity: big free-tailed bat, pallid bat, pocketed free-tailed bat, western mastiff bat, and western yellow bat. All five of these bat species are designated as SSC. In addition, these bat species were determined to have moderate potential to utilize the study area in both a roosting and foraging capacity. In particular, the bridges that cross the LA River, the buildings and other structures with small exposed crevices, and the ornamental fan palms and date palms within the study area have the greatest potential to support roosting bats. It was determined that these bats have the potential to forage within the study area. Areas within the study area with the greatest potential to support foraging bats include the LA River, LASHP, and Elysian Park. Impacts from construction of the proposed project would be significant if the bats were not allowed to roost or forage during construction; however, implementation of Mitigation Measure BIO-2 (below) would reduce impacts to less-than-significant levels.</p> <p>With implementation of Mitigation Measures BIO-1 and BIO-2, the proposed project would not result in substantial effects on any candidate, sensitive, or special status species.</p> <p><b>Mitigation Measure BIO-1:</b> If construction occurs during the nesting period (February 15 through September 15, or as otherwise defined by the California Department of Fish and Wildlife), a pre-construction nesting bird survey must be performed by a qualified biologist. The survey shall be performed within seven days prior to any ground disturbing activities. If active nests are found, the following buffers are recommended to be used until a qualified biologist determines that nesting activities have ceased: 500 feet for raptors and any listed species, 100 feet for all other bird species unless otherwise authorized by CDFW. This will provide adequate protection to native nesting birds for the proposed project under MBTA and California Fish and Game Code. If there is no nesting within 100 feet of the limits of disturbance (500 feet for raptors), no further action is necessary. If project-related ground disturbance occurs outside of the nesting season, no nesting bird survey is necessary.</p> |                                |                                       |                       |           |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p><b>Mitigation Measure BIO-2:</b> If work is expected to occur within 100 feet of trees or other structures with bat roost potential during the maternity season (April 15–August 15), a qualified bat biologist should conduct a one night emergence survey during acceptable weather conditions (no rain or high winds, night temperatures above 45°F) or if conditions permit, physically examine the tree or structure for presence or absence of bats (such as with lift equipment) before the start of construction. If the roost is determined to be occupied during this time, the tree or structure shall be avoided until after the maternity season when young are self-sufficiently volant. If trees or structures with bat roost potential require removal during the winter months when bats are in torpor (October 31–February 15, but is dependent on specific weather conditions), a qualified bat biologist shall physically examine the tree or structure (if conditions permit) for presence or absence of bats (such as with lift equipment) before the start of construction. If the tree or structure is determined to be occupied during this time, the tree or structure shall be avoided until after the winter season when bats are once again active.</p> |                                |                                       |                                     |                          |
| <p>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?</p>   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if riparian habitat or any other sensitive natural community were to be adversely modified. Reference: 18 (Thresholds C)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: Approximately 2.48 acres of Coast Live Oak Woodland/California Walnut Grove were mapped within the 500-foot buffer area. In addition the LASHP contains several individuals of planted western sycamore and coast live oak. The Coast Live Oak/California Walnut Grove vegetation community consists of lands situated on the southern slopes of Elysian Park and contains an assorted mixture of native and ornamental vegetation but is dominated by native trees such as coast live oak (<i>Quercus agrifolia</i>) and southern California black walnut (<i>Juglans californica</i>). Coast Live Oak Woodland/California Walnut Grove is considered a sensitive natural community by CDFW. The habitat located within Elysian Park would not be directly or indirectly affected as a result of project implementation. The individual trees planted within LASHP would not be directly or indirectly affected as a result of project implementation.</p> <p>No riparian habitat or other sensitive natural communities are present within the project site or general vicinity.</p>  |                                |                                       |                                     |                          |
| <p>c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal zones, etc.) through direct removal, filling, hydrological interruption, or other means?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, would be modified or removed. Reference: 18 (Thresholds C), 32 (Nat. Wetlands Map)</p>   |                                |                                       |                                     |                          |
| <p>Explanation: A jurisdictional delineation was prepared for the project, the results of which are presented in the jurisdictional delineation report (Reference: 49). The results of the jurisdictional delineation found there to be State Streambeds, and Federal Waters but no federally protected wetlands in the project site.</p> <p>The LA River is a potential jurisdictional water of the U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB) and is a potential CDFW jurisdictional feature. The LA River is tributary of the Pacific Ocean. A majority of the river has been transformed into a concrete-lined box or trapezoidal channel used for flood control during high velocity storm events. The low-flow channel of the river conveys perennial flow that is primarily composed of waste water treatment plant releases and urban dry-weather runoff. In the study area, the bed and bank are cement-lined, and no soils were present at the time of the delineation field review. Given the lack of soils within the channel,</p>   |                                |                                       |                                     |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|--|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <p>vegetation is essentially absent. There were no additional jurisdictional water bodies in the study area. The river channel contained physical evidence of ordinary water flows in the form of water staining visible at the toe of each side slope, averaging approximately 155 feet in width throughout the study area (width of river bottom). In addition to this physical field evidence, this delineation also takes into consideration modeled hydraulics information from the project engineer (Reference: 47). Based upon the hydraulic analysis of the 1.6-year bankfull discharge, a typical depth of flow of 4.5 feet has been utilized to define USACE Waters of the United States in this case. With the trapezoidal channel configuration throughout the delineation limits, this corresponds to an approximate width of 175.5 feet.</p> <p>The easternmost extent of the LASHP contains a manufactured feature that is not considered to be jurisdictional to USACE, RWQCB, or CDFW. The feature is completely contained within uplands, is vegetated with upland vegetation, and was created after March 7, 2011 (according to historic aerial imagery). The feature does not exhibit signs of an Ordinary High Water Mark (OHWM) and is not jurisdictional under the USACE. The feature does not convey flows, does not exhibit evidence of hydrology, has no beneficial uses, and is not jurisdictional under the RWQCB. The feature has no defined bed and bank and is not jurisdictional under CDFW.</p> |                                |                                       |                          |                                     |
| <p>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project interferes or removes access to a migratory wildlife corridor or impedes the use of native wildlife nursery sites. Reference: 10 (BIOS), 18 (Thresholds C)</p>   |                                |                                       |                          |                                     |
| <p>Explanation: Habitat linkages are areas that provide a communication between two or more other habitat areas that are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but can be vital to the long-term health of connected habitats. Corridors are similar to linkages, but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.</p> <p>While the LA River has the topographic structure of a wildlife corridor and animals can travel along the river, the river lacks adequate cover and routine vegetation removal removes any cover or suitable habitat that may be present. In addition, the proposed project does not connect to any habitat suitable for plants or animals as it is completely developed. No habitat linkages or wildlife corridors are present within the study area; therefore, no impact to linkages or corridors would occur as a result of the project.</p>  |                                |                                       |                          |                                     |
| <p>e) Conflict with any local policies or ordinances to protect biological resources, such as a tree preservation policy or ordinance?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were to cause an impact that would be inconsistent with local regulations pertaining to biological resources. Reference: 10 (CDFG), 27 (Tree Policy), 28 (Urban Forest Program), 25 (PW Tree Policy), 18 (Thresholds C)</p>  |                                |                                       |                          |                                     |
| <p>Explanation: Section 46.00 of the Los Angeles Municipal Code (Preservation of Protected Trees) provides protection for certain species of trees native to the city. These trees include most oak trees, Southern California black walnut, western sycamore, and California bay. City policies also specify replacement ratios when any street trees are removed. The Interpretive Nature Walk Area within LASHP contains several individuals of planted western sycamore and coast live oak. In addition, the northern edge of the study area within Elysian Park contains several older individuals of coast live oak and southern California</p>  |                                |                                       |                          |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|---|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <p>black walnut that are protected under these City provisions. There are no trees within the parcel upon which the water wheel is proposed to be constructed, within potentially affected reaches of the LA River channel, or along the alignment of the pipeline that will be extended across Baker Street. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources and there would be no impact in this regard.</p>   |                                |                                       |                          |                                     |
| <p>f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project would be inconsistent with mapping or policies in any conservation plans of the cited type. Reference: 9 (CNDDDB), 18 (Thresholds C)</p>  |                                |                                       |                          |                                     |
| <p>Explanation: The project site does not occur within a Habitat Conservation Plan or Natural Community Conservation Plan (Reference: 49). No impacts would occur. Reference: 9 (CNDDDB)</p>  |                                |                                       |                          |                                     |
| <p><b>5. CULTURAL RESOURCES</b> – Would the project:</p>  |                                |                                       |                          |                                     |
| <p>a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may result if the proposed project causes a substantial adverse change to the significance of a historical resource (as identified above). Reference: 14 (Guidelines 15064.5), 18 (Thresholds D.3), 12 (CHRIS)</p>  |                                |                                       |                          |                                     |
| <p>Explanation: The North Broadway Bridge (originally the Buena Vista Viaduct), completed in 1911, is considered a historical resource, as defined in Section 15064.5(a)(2) of the State CEQA Guidelines, which states that properties included in a local register of historical resources shall be presumed to be historically or culturally significant. The City maintains a local register of historical resources, which it designates Historic-Cultural Monuments (HCMs). The North Broadway Bridge was declared HCM #907 on January 30, 2008 (Reference: 20), and all of its components are historical resources under CEQA. With respect to the LA River, it could not be verified that the river has been found to be a historical resource, according to Section 15064.5 of the State CEQA Guidelines. However, for the purposes of this study, the LA River is considered to be a historical resource under the criteria related to important historic associations given its significant role in the establishment and growth of the City.</p> <p>Sited along the banks of the LA River and approximately 1 mile from the original pueblo site, the Madre occupies a site that is rich in history. Spanning a period of centuries, this history encompasses the indigenous Tongva/Gabrieleno people, the early Spanish pueblo settlement and agrarian uses of the 18<sup>th</sup> century, and the region’s evolution as an industrial center in 19<sup>th</sup> and 20<sup>th</sup> centuries. The site’s role in the history of the region’s water management is particularly important.</p> <p>The earliest written accounts of the site date to a Spanish expedition led by Gaspar de Portola. Approaching from the east and arriving in the area on August 2, 1769, Juan Crespi, a member of the expedition, emphasized the area’s lush vegetation and excellent water supply in his diary. After overnighing near the Madre site, the Portola contingent continued its journey to the southwest, encountering Yang-na, or Yabit, a village populated by the Tongva, within approximately 1 mile. The combination of good water access, fertile soil, and friendly inhabitants influenced the Spanish to establish a town settlement (pueblo) at the site in 1778.</p> <p>The Spanish settlement consisted of 4 square leagues that were centered on the plaza, with 12 residential lots surrounding it and 36 larger lots for planting platted nearer the river to the south and east. Although ownership was vested in the King of Spain, these residential lots (sitios) and planting lots (suertes) were assigned for the use of individual settler families. Lots to the north, between the plaza and the river, encompassed the Madre site. These were known as <i>propios</i> and served as common planting areas.</p> |                                |                                       |                          |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|---|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p><i>Los Angeles River</i></p> <p>The settlers quickly attended to water distribution. By late 1781, to supply water to families and irrigate crops, pueblo residents excavated a ditch that connected the river to the plaza and the burgeoning agricultural fields that surrounded it. With an intake dam located just north of the current location of the North Broadway Bridge, this main irrigation ditch became known as the Zanja Madre.</p> <p>Crespi's 1769 account described wild grapes that grew in profusion in the area. By 1804, vineyards were being cultivated, signaling the ascendancy of the region's viticulture industry. By 1817, more than 50,000 vines were under cultivation in the pueblo. Wine grapes remained the top producing crop until the 1860s. A variety of grains, including wheat and corn, along with beans, were also cultivated successfully.</p> <p>With an 1820 population of 650 and an economy that was increasingly dependent on agriculture, the growing pueblo knew that it was imperative to have an available source of water and the essential infrastructure for distribution. Heavy rains in 1815 and 1825 introduced the region's new settlers to the river's itinerant nature. Flooding caused by these heavy rains was so extensive that it changed both the channel and the course of the river, moving it west in 1815 and back again in 1825. As the city continued to grow in the century that followed, generations of Angelenos would grapple with managing the river's explosive flows and peripatetic course.</p> <p>By 1849, just before statehood, the irrigation system had expanded to include the Zanja Madre and several subsidiaries. By 1854, the matter of water distribution was important enough for the Common Council of Los Angeles to establish a position known as <i>zanjero</i>. By 1860, the pueblo's population had grown to almost 4,500. Infrastructure demands increased in direct proportion to population growth, and the <i>zanjero</i> soon became the most powerful public official in the fledgling city. By 1870, the irrigation system had grown to a combined length totaling 50 miles.</p> <p>Crudely engineered, the irrigation ditches were both unlined and uncapped. As a result, much of the water that flowed through was lost through absorption, evaporation, or unauthorized appropriation. In addition, the open nature of the system made it unsanitary. Clothes washing and bathing were frequent activities. It was not unknown for bodies—human and animal—to be found in them.</p> <p>Given the increasingly unsanitary condition of the city's irrigated water supply, some more affluent Angelenos arranged to have their water delivered privately in carts by the bucketful. In response to this growing segment of the water market, the Los Angeles Water Works company developed a distribution system that delivered piped water to individual residences starting in 1858. This water was lifted from Abila Springs, near the corner of present-day Alameda and College Streets, with use of a water wheel and conveyed from an elevated flume to a reservoir. From the reservoir, the water was directed to individual homes through underground wooden pipes.</p> <p>Storms in December of 1861 destroyed both the dam that diverted water from the river into the Zanja Madre and the water wheel, increasing the urgency for a more reliable water distribution system. In 1862, a new and larger dam replaced the one that succumbed to the 1861 storms. It supplied water to flumes, which, in turn, carried water to a reservoir located on the plaza. By 1864, a system of underground wooden pipes carried water directly to Angelenos' homes.</p> <p>In 1865, a new water wheel was erected at the site of the water diversion dam. It conveyed water through flumes to a reservoir located near Broadway and Bishops Road. Short lived, this wheel—along with the dam—was also washed away by flooding 1867. Over the next 30 years, a distribution system was implemented, involving new ditches and damming the river farther upstream to eliminate the need for water wheels and elevated plumes, which had proven vulnerable to Los Angeles's winter storms.</p> <p><i>Railroad Development</i></p> |                                |                                       |                       |           |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|---|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p>Isolated from the East and Midwest by forbidding mountains and perilous deserts, Los Angeles remained a difficult destination until relatively late in the 19<sup>th</sup> century. Keenly aware of the high costs and lack of options associated with transporting goods to and from Los Angeles, the City's boosters prioritized bringing a rail connection to the region. The Southern Pacific Railway Company demanded cash and land: \$600,000 and a location suitable for rail yards. Using bond issues passed by the citizenry in 1872, the city agreed. Arcadia Bandini de Stearns, who had inherited sizeable portions of land from her husband Abel Stearns, donated a parcel just south of the Madre site to the Southern Pacific in 1873. Stearns had located his Capitol Mills flour processing plant south of the site and along the route of the Zanja Madre to exploit the running water that passed through it to power his mill.</p> <p>By 1876, a rail line connecting Los Angeles to San Francisco had been completed. The area surrounding the Madre site, which became known as Station Yard and Bull Ring Yard, was rapidly transforming from agricultural to railroad-related uses. It eventually became the hub of Southern Pacific's operations in the region. Southern Pacific, Santa Fe, and Union Pacific railroad tracks crisscross the entire area, lining both sides of the river along this stretch.</p> <p><i>Managing the River</i></p> <p>The Los Angeles Basin watershed includes not only the LA River but also Rio Hondo and the San Gabriel River. Frequent and often violent winter storms have historically caused substantial flooding along the basin's rivers. Following the establishment of the Pueblo de Los Angeles, these floods and the resulting damage periodically disrupted the fledging city's water supply. As the population increased, so too did the devastation arising from the floods of 1862, 1884, and 1889. After the 1889 floods, the Los Angeles County Board of Supervisors commissioned a flood control study that concentrated on Rio Hondo and the San Gabriel River. Their recommendations included widening the LA River but were not implemented. In 1914, with Los Angeles's population exploding and the built environment expanding rapidly, another flood did considerable damage. As a result, the Board of Supervisors established the Los Angeles County Flood Control District. Subsequently, flood control projects were proposed and approved by a 1917 bond measure. Additional bond measures were approved in the 1920s. Bond money was spent on diverting the LA River away from Long Beach Harbor and installing various flood control schemes, which would prove to be woefully inadequate in the coming decade. Indeed, the flood of 1934 revealed the need for rapid improvement in flood control, and USACE took on the task. However, it was the exceedingly damaging flood of 1938 that led USACE to settle on the concept of large, deep, reinforced concrete channels along most of the LA River as the ultimate solution. In addition, the construction of Sepulveda Dam in the San Fernando Valley helped control the volume of water released into the river during times of flood. By 1940, the LA River flood control system, with its deep concrete-lined channel in the vicinity of the project area, had been completed.</p> <p><i>Bridging the River</i></p> <p>Given the LA River's tendency to flood, with a resulting loss of life and property, a series of bridges of increasing size and strength have been constructed since the mid-19<sup>th</sup> century. Iron and steel bridges appeared in the 1840s, linking downtown Los Angeles with the east side. However, such bridges were easily destroyed during floods. Motivated partly by the "City Beautiful Movement" arising from the World's Columbian Exposition of 1893, city leaders envisioned civic improvements, such as bridges, as part of their plan to beautify Los Angeles. In the coming decades 16 monumental bridges would be erected across the LA River. Homer Hamlin of the Bureau of Engineering championed concrete arched bridges decorated in neoclassical or Beaux Arts styles during his tenure from 1906 to 1917. Under Hamlin's direction, the Main Street Bridge was erected in 1910, the Seventh Street Viaduct appeared in 1910 (redesigned in 1927), and the Buena Vista (now North Broadway) Bridge was completed in 1911. The latter is the bridge located in the project area. All three of these bridges are designated City HCMs. However, it was Merrill Butler, Engineer of Bridges and Structures from 1923 to 1963, who had the greatest influence in the design and construction of bridges across the LA River. With funds provided</p> |                                |                                       |                       |           |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|--|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p>by the Viaduct Bond Act of 1923 and, later, the federal government, Butler oversaw the construction of the Olympic Boulevard Bridge (1925 [HCM]), Los Feliz Boulevard Bridge (1925), Macy Street Bridge (1926 [HCM]), Fletcher Avenue Bridge (1927 [HCM]), North Spring Street Bridge (1928 [HCM]), First Street Viaduct (1929 [HCM]), Glendale-Hyperion/Victory Memorial Viaduct (1929 [HCM]), Fourth Street Viaduct (1930 [HCM]), Washington Boulevard Bridge (1931 [HCM]), Sixth Street Viaduct (1932 [HCM]), Northbound Figueroa Street Viaduct (1937), Riverside/Zoo Drive Bridge (1938), Riverside/Figueroa Street Bridge (1927/1939 [HCM]), Lankershim Boulevard Bridge (1940), and the Southbound Figueroa Street Viaduct (1943).</p> <p>The Bureau of Engineering, utilizing funds from the federal government’s Work Progress Administration (1935–1943), in consultation with the City’s Municipal Art Commission, produced the Moderne/Art Deco bridges such as the Riverside/Figueroa Street Bridge and the Lankershim Boulevard Bridge. However, most relevant to the current project is the North Broadway Bridge, originally named the Buena Vista Viaduct when completed in 1911. It was the first of the monumental concrete bridges to straddle the LA River and was the first open-spandrel arch bridge in California. It was also the longest and widest concrete bridge in the state when it opened. The character-defining features of the bridge include its Beaux Arts design; reinforced concrete construction; arched spans; decorative columns, pylons, balustrades, and balconies; and globe lamps. In 2000, the decorative elements of the bridge (balustrade, columns, balconies) were restored to their original appearance. The bridge was designated City HCM #907.</p> <p><i>Impact Discussion</i></p> <p>The study area for potential impacts on historic resources arising from the proposed project includes the parcel on which the water wheel would be constructed, the North Broadway Bridge, and the river where the diversion dam, side channels, and pipes would be constructed. Of these, the North Broadway Bridge and the LA River are historical resources for the purposes of CEQA.</p> <p>Installation of the proposed water wheel, alteration of the LA River’s concrete channel walls and bottom, and installation of an inflatable dam would result in no direct impacts on the significance of the North Broadway Bridge or the LA River as historical resources. Specifically, the proposed water wheel and associated equipment would not physically touch any portions of the North Broadway Bridge. With respect to the LA River, concrete panels from the apron of the channel would be removed up to a vertical height of approximately 10 feet. In addition, portions of the flat concrete riverbed would be removed to accommodate receiving pits (8 by 15 feet in size).</p> <p>The river is a highly altered environment, with its current form in the vicinity of the bridge established in 1938. The proposed modifications would have no direct impact on the significance of the LA River as a historical resource because of the relatively small size of the removed portions of the concrete apron and riverbed in relation to the overall size of the concrete river channel in the vicinity of the North Broadway Bridge. Similarly, there would be no direct impact on the significance of the river from installation of an inflatable dam, which would span the width of the river. The inflatable dam would be reversible and not permanent, thereby in no way affecting the historical significance of the LA River.</p> <p>The proposed water wheel would be a work of sculpture that would rise 35 feet above the ground surface. It would be 3.5 feet below the bridge deck and approximately 50 feet from the bridge’s semicircular balcony. It would have no indirect impact on the character-defining features of the North Broadway Bridge (i.e., Beaux Arts design; reinforced concrete construction; arched spans; decorative columns, pylons, balustrades, and balconies; and globe lamps).</p> <p>To summarize, because of its distance from the historic bridge, the proposed water wheel would not interfere with visual appreciation of the bridge’s design when viewed from positions south, west, and east of the bridge. In addition, the water wheel, as a work of art, would be an attractive visual feature, with ties to the history of water distribution in the Pueblo de Los Angeles in the late 1850s and the original water wheel, which existed near the project site. Finally, installation of a water wheel would</p> |                                |                                       |                       |           |

| <h1>Issues</h1>  | Potentially Significant Impact            | Less than Significant with Mitigation | Less than Significant    | No Impact                |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
|--|---|---------------------------------------|--------------------------|--------------------------|-------------|------------------|---------------|-------------|-------------------------------------|------|-------------|---|------|-------------|---|------|-------------|-------------------------------|------|---------------------|--------------------------------------|------|
| <p>reinforce the historic importance of the LA River as a water source.</p> <p>In conclusion, the proposed project would not cause a substantial adverse change in the significance of a historical resource, in accordance with Section 15064.5 of the State CEQA Guidelines.</p>   |   |                                       |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| <p>b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to California Code of Regulations Section 15064.5?</p>  | <input type="checkbox"/>                  | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| <p>Standard: A significant impact may occur if the proposed project were to cause a substantial adverse change in the significance of an archaeological resource that falls under the State CEQA Guidelines section cited above. Reference: 14 (Guidelines 15064.5), 18 (Thresholds D.2), 12 (CHRIS)</p>   |   |                                       |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| <p>Explanation: As indicated in the cultural background text presented above, the project area is within an area of downtown Los Angeles that has been previously developed with streets, railroads, and industrial uses. Development in this area also included channelization of the LA River. Despite this level of development, caution must be exercised in assessing the potential for preserved subsurface prehistoric archaeological resources in developed areas near the LA River. The discovery of extensive historical and prehistoric resources, including human remains, immediately under the asphalt surface near Los Angeles Union Station in 1995 (archaeological site CA-LAN-1575/H) demonstrates how resources can be preserved despite extensive urbanization (Reference: 38).</p> <p>A record search conducted on July 2, 2012, determined that no prehistoric or historical archaeological sites have been recorded in the project area. Four historic-period archaeological sites and one isolate have been recorded within a 0.25-mile radius. Another cultural resource that was once in proximity to the project area is an unrecorded segment of the Zanja Madre, or “mother ditch,” which once ran along the base of the bluff at the northern edge of the railroad yard. The Zanja Madre was the original aqueduct that brought water to the Pueblo de Los Angeles from the LA River and an important part of the City’s water system during its early development.</p> <p>The recorded sites are tabulated below.</p> <table border="1" data-bbox="261 1182 1421 1373"> <thead> <tr> <th>Site Number</th> <th>Site Description</th> <th>Date Recorded</th> </tr> </thead> <tbody> <tr> <td>CA-LAN-3100</td> <td>Historic-period debris (nine items)</td> <td>2002</td> </tr> <tr> <td>CA-LAN-3101</td> <td>Historic-period debris (approx. 25 items)</td> <td>2002</td> </tr> <tr> <td>CA-LAN-3120</td> <td>River Station (“Cornfield”) railroad yard</td> <td>2003</td> </tr> <tr> <td>CA-LAN-4182</td> <td>Railroad ties in North Street</td> <td>2011</td> </tr> <tr> <td>19-100881 (Isolate)</td> <td>Historic-period debris (three items)</td> <td>2009</td> </tr> </tbody> </table> <p>The River Station railroad yard, now the State Park, was the center of Southern Pacific operations in Southern California. Established in 1875, a depot and freight warehouse were first constructed, followed by a hotel in 1879. During the 1870s, various maintenance facilities were built, including a roundhouse, machine shop, car shop, blacksmith shop, coal dock, ice house, and other facilities (Sampson and Garrett 2010). The railroad removed the buildings from the River Station railroad yard in 1904. The area was used as a freight yard until 1996. The area was designated a state park in 2005. Previous work in the River Station railroad yard indicates that there is a high potential for historical archaeological resources associated with early railroad development in the area. This high potential to discover buried historic-period archaeological resources may extend to the project area.</p> <p>Because there is no surface exposure in the project area, an archaeological resources survey was not performed. Although a great deal of archaeological work has been done in the adjacent railroad yard/State Park, only one previous archaeological survey (Peak &amp; Associates 1992) has encompassed portions of the project area.</p> <p>The project area has undergone grading and earthmoving at various times for construction of existing buildings, the LA River channel, Metro Gold Line, and streets. Ground disturbances from these previous</p> |   |                                       |                          |                          | Site Number | Site Description | Date Recorded | CA-LAN-3100 | Historic-period debris (nine items) | 2002 | CA-LAN-3101 | Historic-period debris (approx. 25 items) | 2002 | CA-LAN-3120 | River Station (“Cornfield”) railroad yard | 2003 | CA-LAN-4182 | Railroad ties in North Street | 2011 | 19-100881 (Isolate) | Historic-period debris (three items) | 2009 |
| Site Number  | Site Description                          | Date Recorded                         |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| CA-LAN-3100  | Historic-period debris (nine items)       | 2002                                  |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| CA-LAN-3101  | Historic-period debris (approx. 25 items) | 2002                                  |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| CA-LAN-3120  | River Station (“Cornfield”) railroad yard | 2003                                  |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| CA-LAN-4182  | Railroad ties in North Street             | 2011                                  |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |
| 19-100881 (Isolate)  | Historic-period debris (three items)      | 2009                                  |                          |                          |             |                  |               |             |                                     |      |             |   |      |             |   |      |             |                               |      |                     |                                      |      |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                |
|---|--------------------------------|---------------------------------------|--------------------------|--------------------------|
| <p>developments may have inadvertently destroyed unknown archeological resources. However, because significant buried cultural resources may exist within the project area and it is possible that these archaeological materials could be unearthed during project excavation activities, construction of the proposed project may have the potential to disturb and destroy an archaeological resource. Disturbance of significant archaeological resources would result in a significant adverse impact. Mitigation measure CR-1 would reduce impacts associated with the proposed project to a less-than-significant level.</p> <p><b>Mitigation Measure CR-1:</b> A qualified professional archaeologist shall monitor the initial phase of ground-disturbing activities of the project. If buried cultural resources—such as historic debris, building foundations, non-human bone, flaked or ground stone—are discovered during ground-disturbing activities, work shall stop in that area and within 50 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include development of avoidance strategies, capping with fill material, or mitigation of impacts through data recovery programs such as excavation or detailed documentation. If, during cultural resources monitoring, the qualified archaeologist determines that the sediments being excavated are previously disturbed or unlikely to contain significant cultural materials, the qualified archaeologist can specify that monitoring be reduced or eliminated.</p>   |                                |                                       |                          |                          |
| <p>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</p>  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if grading or excavation activities associated with the proposed project would disturb unique paleontological resources or unique geologic features. Reference: 14 (Guidelines 15064.5), 18 (Thresholds D.1), 30 (Dibblee), 12 (CHRIS), 20 (ZIMAS)</p>  |                                |                                       |                          |                          |
| <p>Explanation: Surface deposits in the project area, consisting of floodplain deposits from the LA River, are mapped as younger Quaternary alluvium (Dibblee and Ehrenspeck 1989). These are silt, sand, and gravel deposits of Holocene age (10,000 years Before Present [BP] to Recent). Because of the proximity to the LA River, younger Quaternary alluvium in the project area is likely to be quite thick. Underlying these deposits is older Quaternary alluvium of Pleistocene age (2.6 million years ago (Ma) to 10,000 BP). Geotechnical testing for the project (Reference: 37) indicated that the project site is underlain by about 5 feet of fill, with alluvial sands beneath this fill.</p> <p>The hills and bluffs northwest of the project area are made up of surface exposures of bedrock from the Monterey Formation (also referred to as the Puente Formation in this area) of late Miocene age (11.6 to 5.3 Ma). Monterey Formation bedrock was not encountered in project investigations, which were conducted to depths of 70 feet below the ground surface, but may be present at relatively shallow depths north of the project site along Broadway (Reference: 37).</p> <p>The paleontological sensitivity of sediments in the project area ranges from none to very sensitive. Fill has no paleontological sensitivity. Quaternary younger alluvial deposits contain the remains of modern organisms and are too young to contain fossils. Younger alluvial deposits have been determined to have a low potential for paleontological resources. Typically, Quaternary older alluvial deposits throughout Southern California are considered to be highly sensitive for vertebrate fossils. The Monterey Formation, the uppermost layers of consolidated bedrock underlying the alluvial deposits, has been demonstrated to be fossiliferous in the vicinity of the study area and is considered to have a high sensitivity for paleontological resources.</p> <p>A check of the vertebrate paleontology records of the Natural History Museum of Los Angeles County (LACM) indicated that no fossil resources have been recovered within the project area (Reference: 39). The museum’s files indicated that the nearest vertebrate fossil locality is from the Monterey Formation, LACM 7507, located about 0.6 mile north of the project site. This locality yielded a fossil fish at a depth of 100 feet below the ground surface. Within Elysian Park, to the north, a general fossil locality, LACM 4967</p> |                                |                                       |                          |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                |
|--|--------------------------------|---------------------------------------|--------------------------|--------------------------|
| <p>also yielded marine invertebrates, including a specimen of a species new to science (Reference: 39).</p> <p>Deeper excavations associated with the project, those that extend 10 feet or more below the ground surface, may encounter significant fossil resources. Disturbance of significant paleontological resources would result in a significant adverse impact. Mitigation measure CR-2 would reduce impacts associated with the proposed project to a less-than-significant level.</p> <p><b>Mitigation Measure CR-2:</b> Project plans shall specify that a qualified paleontologist shall monitor initial ground disturbance at depths below ground surface greater than 10 feet. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, the sediments being monitored were previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not present or, if present, determined by qualified paleontologic personnel to have a low potential to contain fossil resources. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Specimens shall be curated into a professional, accredited museum repository with permanent retrievable storage. A report of findings, with an appended itemized inventory of specimens, shall be prepared and shall signify completion of the program to mitigate impacts on paleontological resources.</p>  |                                |                                       |                          |                          |
| <p>d) Disturb any human remains, including those interred outside of formal cemeteries?</p>  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if grading or excavation activities associated with the proposed project would disturb interred human remains. Reference: 14 (Guidelines 15064.5), 18 (Thresholds D.2), 12 (CHRIS)</p>   |                                |                                       |                          |                          |
| <p>Explanation: The project location is not a formal cemetery and is not adjacent to a formal cemetery. The project parcel is not known to contain human remains interred outside formal cemeteries, nor is it known to be located on a burial ground. The record search for the project indicated that no prehistoric archaeological sites are located in or near the project area. However, it is possible human remains could be unearthed during project excavation activities. Native American burials are often situated along the banks or flood terraces of rivers, and the project location adjacent to the LA River indicates a high sensitivity for human remains. Disturbance of human remains would result in a significant adverse impact. Mitigation measure CR-3 would reduce impacts associated with the proposed project to a less-than-significant level.</p> <p><b>Mitigation Measure CR-3:</b> Project plans shall specify that should human remains be uncovered during construction, construction shall halt in the area of discovery, the area shall be protected, and no further disturbance shall occur, as specified by State Health and Safety Code Section 7050.5. The county coroner shall determine the origin and disposition of the human remains pursuant to Public Resources Code 5097.98. If the coroner recognizes the remains to be Native American, he or she shall contact the California Native American Heritage Commission (NAHC) within 24 hours. For remains of Native American origin, no further excavation or disturbance shall take place until the most likely descendant of the deceased Native American(s) has made a recommendation to the landowner or the person responsible for the excavation work regarding means of treating or disposing of the human remains and any associated grave goods, with appropriate dignity, as provided in Public Resources Code Section 5097.9. In consultation with the most likely descendant, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, and this recommendation shall be implemented expeditiously. If the NAHC is unable to identify a most likely descendant or the descendant fails to make a recommendation within 48 hours after being notified by the commission, the project archaeologist and the project proponent shall determine a course of action regarding preservation or excavation of Native American human remains, which shall be</p> |                                |                                       |                          |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| submitted to the NAHC for review prior to implementation.  |                                |                                       |                                     |                          |
| <b>6. GEOLOGY AND SOILS</b> – Would the project:   |                                |                                       |                                     |                          |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                                |                                       |                                     |                          |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project were located within a state-designated Alquist-Priolo Zone or other designated fault zone and appropriate building practices were not followed. References: 6 (CDC Publ. 42), 18 (Thresholds E.1)   |                                |                                       |                                     |                          |
| Explanation: The project site is not located with an Alquist Priolo Fault Zone. As such the potential for surface fault rupture at the site is considered low and thus impacts would be less than significant<br>References: 6(CDC Publ. 42)   |                                |                                       |                                     |                          |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project design did not comply with building code requirements intended to protect people from hazards associated with strong seismic ground shaking. Reference: 6 (Seismic Hazard Map, Los Angeles Quad.), 18 (Thresholds E.1)  |                                |                                       |                                     |                          |
| Explanation: Due to its location in Southern California the proposed project could result in the exposure of persons and structures on the site to strong seismic shaking. These risks are not unique to the site. The proposed project will be designed by California-licensed professional civil, geotechnical, and structural engineers in accordance with applicable building codes. Construction will be performed by licensed professional contractors who will comply with applicable safety standards. Designs will subject to reviews and construction subject to permits per local, state, and federal laws to confirm this compliance. Specifically, design will include adherence to 2010 California Building Code seismic design provisions, including, but not limited to, Section 1604.10 (wind and seismic detailing), 1605 (Load Combinations), 1613 (Earthquake Loads) and Chapter 18 (Soils and Foundations). Thus, impacts related to seismic ground shaking are considered less than significant.                                 |                                |                                       |                                     |                          |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project were located in an area identified as having a high risk of liquefaction and appropriate design measures required within such designated areas were not incorporated into the project. Reference: 6 (Seismic Hazard Map, Los Angeles Quad.), 18 (Thresholds E.1)  |                                |                                       |                                     |                          |
| Explanation: Liquefaction typically occurs when water-saturated sandy soils are subjected to seismic shaking, causing soils to liquefy and behave as a viscous liquid rather than as a solid. Liquefaction can result in surface subsidence and cause structures to tilt or sink into the surface.<br><br>The site is located in an area that has been identified as being potentially susceptible to liquefaction by the California Geological Survey Seismic Hazard Zone Maps. As such site specific investigations were undertaken to screen the site for the presence of liquefaction hazards. This investigation and liquefaction triggering evaluations conducted subsequently indicated that there is the possibility that isolated portions of the subsurface may experience liquefaction during the design seismic event.<br><br>While primarily a concern related to “serviceability” of the proposed structure and unlikely a life safety risk, the potential for liquefaction will require assessment during project design as outlined in |                                |                                       |                                     |                          |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p><b>Mitigation Measure GEO-1</b>, below.</p> <p><b>Mitigation Measure GEO-1:</b> Potential liquefaction hazards shall be mitigated effectively using common place foundation design features which will be incorporated in the design of the final structures as discussed in the geotechnical investigation report. The retaining wall type and foundation system selected during design will control precisely which design features among many possible features will be selected.</p> <p>The process of selection of design features will be “performance-based” in that the project geotechnical engineer and structural engineer will work together to understand the response of the proposed construction to the design seismic event including the effects of liquefaction. Within this framework the performance (i.e. physical damage) of the proposed structures under the anticipated seismic loading including liquefaction will be evaluated. This evaluation will be an iterative process with additional liquefaction mitigation measures (e.g. pile foundations, stiffened structural elements) added as necessary to achieve the desired results. This process will take place in conformance to the with California Building Code seismic design standards.</p> <p>Through this process of evaluation, and with the selection of appropriate structural systems, these potential impacts would be reduced to a less-than-significant level.</p> <p>Reference: 6 (Seismic Hazard Map), 26 (Thresholds E.1) (see discussion in Section IV.)</p> |                                |                                       |                                     |                                     |
| iv) Landslides?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were located in a hillside area with soil conditions that would suggest a high potential for sliding and appropriate design measures were not implemented. Reference: 6 (Seismic Hazard Map, Los Angeles Quad.), 18 (Thresholds E.1)</p>  |                                |                                       |                                     |                                     |
| <p>The project is not within a landslide hazard area identified by the California Department of Conservation. Therefore, construction and operation of the proposed water wheel would have no impact related to landslides.</p>   |                                |                                       |                                     |                                     |
| b) Result in substantial soil erosion or the loss of topsoil?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project were to expose large areas to the erosion effects of wind or water for a prolonged period of time. Reference: 18 (Thresholds E.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The project site is entirely paved. Construction would include ground-disturbing activities, such as grading and excavation. These activities may result in topsoil erosion at the project site. However, given the short duration of construction, soil exposure would be temporary and applicable Department of Building and Safety erosion control techniques would limit potential erosion. All construction activities would comply with BMPs to prevent erosion or loss of topsoil to wind.</p> <p>In accordance with standard specifications for public works construction and building code requirements, the proposed project would implement SWPPP for erosion and sedimentation control. Construction BMPs would also be undertaken to control runoff and erosion from earthmoving activities. Implementation of such control measures would prevent substantial soil erosion or the loss of topsoil from exposed soils. Therefore, by complying with the SWPPP, impacts related to erosion and debris deposition from runoff would be less than significant.</p>  |                                |                                       |                                     |                                     |
| c) Be located on a geologic unit or soil that is unstable or would become unstable as a result of the project and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project were built in an unstable area without proper site preparation or design features to provide adequate foundations for project buildings, thus posing a hazard to life and property. Reference: 6 (Seismic Hazard Map, Los Angeles Quad.), 18</p>  |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| (Thresholds E.2)  |                                |                                       |                                     |                                     |
| <p>Explanation: Please see 6(a)(iii) and (iv), above, regarding seismically related ground failure, liquefaction, and landslides.</p> <p>Given the observed lateral heterogeneity of the subsurface at the project site, it appears that liquefaction-induced lateral spreading is not a significant hazard. No continuous liquefiable layer that extends to a free face was identified during the investigation. The discontinuous pockets of potentially liquefiable soil would most likely be restrained by the surrounding, more-resistant pockets.</p> <p>At the proposed foundation levels for the water wheel and tunnel structures, the foundation soils do not consist of uncontrolled fills or natural soils with unstable soil structure and thus are unlikely to susceptible to collapse.</p> |                                |                                       |                                     |                                     |
| d) Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2010), creating substantial risks to life or property?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: Not addressed in local CEQA thresholds.   |                                |                                       |                                     |                                     |
| <p>Explanation: The site specific geotechnical report did not identify the presence of expansive soils on the project site. Soils encountered during the geotechnical investigation were predominately non plastic silty sands. Non plastic soils are generally considered to have "very low" expansion potential. Therefore, impacts from potentially expansive soil would be less than significant.</p>   |                                |                                       |                                     |                                     |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project were built on soils that were incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system and such a system was proposed. Reference: 18 (Thresholds E.3)  |                                |                                       |                                     |                                     |
| <p>The project area is served by the City's wastewater collection, conveyance, and treatment systems. The proposed project would not require the use of septic tanks or an alternative wastewater disposal system. Therefore, no impact would occur.</p> <p>Reference: 26 (NavigateLA wye map)</p>  |                                |                                       |                                     |                                     |
| <b>7. GREENHOUSE GAS EMISSIONS</b> – Would the project:   |                                |                                       |                                     |                                     |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: Reference: CAPCOA 2008, AB 32   |                                |                                       |                                     |                                     |
| <p>Explanation: AB 32 identified a 2020 target level for GHG emissions in California of 427 million metric tons (MMT) of CO<sub>2</sub>e, which is approximately 28.5% less than the 2020 business-as-usual (BAU) emissions estimate of 596 MMT CO<sub>2</sub>e. As discussed in Section IV, construction and operation of the project is anticipated to result in GHG emissions that would not exceed the CAPCOA threshold of 900 MT. To put this number into perspective, statewide CO<sub>2</sub>e emissions for 2009 were estimated to be 456.8 MMT. Impacts would be less than significant. No mitigation measures would be required</p> <p>Reference: 37 (Air Quality Report, 2012), CAPCOA. See discussion in Section IV.</p>  |                                |                                       |                                     |                                     |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: 42. (AB 32)   |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>Explanation: The proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs; therefore, impacts would be less than significant (see discussion in Section IV).</p>   |                                |                                       |                                     |                                     |
| <p><b>8. HAZARDS AND HAZARDOUS MATERIALS – Would the project:</b></p>   |                                |                                       |                                     |                                     |
| <p>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project involved the use or disposal of hazardous materials as part of its routine operations and would have the potential to generate toxic or otherwise hazardous emissions. Reference: 18 (Thresholds F.1, F.2)</p>  |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project would involve the construction and operation of a water wheel and appurtenant structures for the transport of water from the Los Angeles River. Construction of the proposed project would require up to 5,515 cubic yards of soil and asphalt to be removed as result of the proposed project. It is likely that most of the asphalt, which is not considered to be a hazardous material, would be recycled.</p> <p>During construction, hazardous materials, including petroleum fuels and oils for construction equipment, would be used. The release of these materials could occur through spills or from runoff during storm events; however, with adherence to applicable regulations, such occurrences would not pose a substantial risk. Any construction and operation activity would comply with applicable laws and regulations related to the use, transport, or disposal of hazardous materials.</p> <p>Operation of the proposed project would not involve the routine use, transport, or disposal of any hazardous materials. However, the proposed project would include treatment of the diverted water and a storage tank. Water would be screened to remove debris at the intake tunnel inlet; water lifted by the wheel would flow to a concrete box commonly used for sediment; trash removal and additional screening for debris would take place prior to UV treatment. Any small amounts of sediment or trash that remain would be removed manually or by vacuum truck. The treatment system, storage tank, and associated piping and equipment would comply with applicable leak detection, monitoring, and construction and operation codes, and would conform to the City’s fire codes to prevent significant hazards to the public or the environment.</p> <p>Additionally, minor maintenance of the water wheel, such as oil changes, would be performed. All materials would be handled in accordance with all applicable regulations to prevent significant hazards to the public and environment. Therefore, construction and operation activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and impacts would be less than significant.</p> |                                |                                       |                                     |                                     |
| <p>b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project involved a risk of accidental explosion or utilized substantial amounts of hazardous materials as part of its routine operations that could potentially pose a hazard to the public under accident or upset conditions. Reference: 15 (GeoTracker), 16( LAMC), 18 (Thresholds F.1, F.2), 33 (USGS Los Angeles Quad)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project does not involve the use, transport, or disposal of any hazardous materials. Refer to discussion under 8(a), above.</p>  |                                |                                       |                                     |                                     |
| <p>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <b>Issues</b>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|---|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| proposed school?  |                                |                                       |                          |                                     |
| Standard: A significant impact may occur if the proposed project were located within 0.25 mile of an existing or proposed school site and were projected to release toxic emissions which pose a hazard beyond regulatory thresholds. Reference: 18 (Thresholds F.2)  |                                |                                       |                          |                                     |
| Explanation: There is no school within 0.25 mile of the project site. The closest school is Cathedral High School, which is approximately 0.5 mile from the project site. The project site does not contain hazardous or acutely hazardous materials, substances, or waste. Construction and operation of the project would not involve substantial quantities of hazardous or acutely hazardous materials, substances, or waste. No impact would occur. Reference: 15 (GeoTracker), 13 (EnviroStor), 26 (NavigateLA Schools)   |                                |                                       |                          |                                     |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: Reference: 18 (Thresholds F.2)  |                                |                                       |                          |                                     |
| Explanation: A search of available environmental records was conducted on June 19, 2012, by EDR for the address 1745 North Spring Street, Los Angeles, CA 90012. The project site was not listed in any of the databases searched by EDR. Furthermore, the project site is not listed in the State Water Resources Control Board GeoTracker system, which includes leaking underground fuel tank sites and the Spills, Leaks, Investigations, and Cleanups Program; or the Department of Toxic Substances Control EnviroStor Data Management System, which includes Cortese sites; or the Environmental Protection Agency's database of regulated facilities. No impact would occur as a result of construction and operation of the project on the site.<br><br>Reference: 16 (GeoTracker), 13 (EnviroStor), 37 (EPA Registry)Reference: 16 (GeoTracker), 13 (EnviroStor), 37 (EPA Registry) |                                |                                       |                          |                                     |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project site were located within a public airport land use plan area, or within two miles of a public airport, and would create a safety hazard. Reference: 18 (Thresholds F.1, K.2)   |                                |                                       |                          |                                     |
| Explanation: The project site is located approximately 12 miles from Bob Hope Airport. The project is not located within an airport land use plan or within two miles of a public airport. Construction and operation of the proposed project would not pose a safety hazard with respect to air traffic. No impact would occur. Reference: 22 (ZIMAS), 27 (NavigateLA)   |                                |                                       |                          |                                     |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the project would result in a safety hazard for people residing or working in the project area because of its location near a private airstrip. Reference: 18 (Thresholds F.1, K.2)   |                                |                                       |                          |                                     |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|--|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <p>Explanation: No private airstrip is located within the vicinity of the project site. No impact would occur as a result of construction or operation of the project.</p> <p>Reference: 27 (NavigateLA)</p>   |                                |                                       |                          |                                     |
| <p>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were to substantially interfere with roadway operations used in conjunction with an emergency response plan or evacuation plan or would generate sufficient traffic to create traffic congestion that would interfere with the execution of such plan. Reference: 18 (Thresholds F.1, K.2)</p>   |                                |                                       |                          |                                     |
| <p>Explanation: The proposed project would not alter the adjacent street system. As applicable, any traffic detour plans during construction would address emergency response or emergency evacuation. Furthermore, project design would ensure that the water surface elevation during flood conditions is not altered (as modeled with the USACE's HEC-RAS model, which is what the FEMA uses to establish their flood hazard areas). Therefore, the proposed project would not interfere with any emergency response plans established by FEMA in the river flood plain, and FEMA review of project plans would not be required. No impact on emergency services would occur as a result of construction and operation of the project.</p>  |                                |                                       |                          |                                     |
| <p>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were located in a wildland area and posed a significant fire hazard, which could affect persons or structures in the area in the event of a fire. Reference: 18 (Thresholds K.2)</p>   |                                |                                       |                          |                                     |
| <p>Explanation: The project site is not located in an area considered a Very High Fire Hazard Severity Zone. Construction and operation of the proposed project would have no impact with respect to wild land fires. Reference: 30 (Fire Code Amendments), 22 (ZIMAS)</p>   |                                |                                       |                          |                                     |
| <b>9. HYDROLOGY AND WATER QUALITY – Would the project:</b>   |                                |                                       |                          |                                     |
| <p>a) Violate any water quality standards or waste discharge requirements?</p>   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project discharged water that did not meet the quality standards of agencies that regulate surface water quality and water discharge into storm-water drainage systems. Reference: 18(Thresholds G.2)</p>  |                                |                                       |                          |                                     |
| <p>Explanation:</p> <p><i>Construction</i></p> <p>The greatest potential to violate water quality standards or degrade water quality during construction would result from discharges of soil, spills or other constituents directly into the river, uncontrolled runoff of contaminated stormwater into the river, and discharges of contaminated water from dewatering into the river.</p> <p>Construction would be in and adjacent to the river channel. Consequently, there is a potential for siltation and sedimentation in the river channel from earthwork associated with construction. There is also the potential that fuel leaks and spills from construction equipment could enter the waterway.</p> <p>In areas of active construction, soil erosion may also result in discharges of sediment-laden stormwater runoff into receiving waters if not properly controlled. Additional sediment input to the downstream surface water bodies from construction of the proposed project could contribute to degradation of downstream water quality and impairment of beneficial uses. Sediment can also be a carrier for other pollutants, such</p> |                                |                                       |                          |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|---|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p>as heavy metals, nutrients, pathogens, oil and grease, fuels, and other petroleum products. In addition to sediment, other pollutants associated with the various phases of construction, such as trash, paint, solvents, sanitary waste from portable restrooms, and concrete curing compounds, can discharge into and impair receiving waters if released during construction. Therefore, construction-period activities could generate stormwater runoff that may cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the receiving water quality.</p> <p>The General Construction Permit includes conditions and requirements with the specific purpose of minimizing the discharge of contaminants from a construction site into surface and ground water.</p> <p>Measures would also be implemented to protect receiving waters from dewatering and construction related non-stormwater discharges. Such discharges would be implemented in compliance with the Los Angeles RWQCB's General WDRs under Order No. R4-2008-0032 (NPDES No. CAG994004) governing construction-related dewatering discharges within the project development areas. Typical BMPs for construction dewatering include infiltration of clean groundwater, onsite treatment using suitable treatment technologies, onsite sanitary sewer discharge or transport off site with local sewer district approval, or use of a sedimentation bag for small volumes of localized dewatering.</p> <p>Implementing specific measures highlighted in mitigation measure HYD-1 would mitigate impacts that could result in violation of water quality standards or waste discharge requirements from project construction to a less-than-significant level.</p> <p><i>Operation</i></p> <p>The proposed project would result in a new side channel carrying river water through the proposed project site. The operation of the proposed project could change pollutant load through alteration of stormwater chemistry due to a change in land use. The property is currently being used for maintenance of Metro vehicles. While some maintenance would be required during the operation of the wheel and the water treatment system, it is expected to be less frequent than current maintenance activities, with fewer vehicles entering and exiting the site. This could potentially decrease the load of metals and petroleum hydrocarbons in stormwater runoff.</p> <p>Additionally, the 80 gallons per minute of water in the LA River that gets pumped out of the channel by the Water Wheel would undergo filtration and UV treatment to remove particles and pathogens. The water would be treated to level to allow it to be safely used for spray irrigation. As such, conditions resulting in a violation of water quality standards or waste discharge requirements are not expected as a result of the proposed project. The following mitigation measure will serve to reduce potential hydrology and water quality impacts associated with the project to a less-than-significant level:</p> <p><b>Mitigation Measure HYD-1:</b> Consistent with the requirements of the statewide Construction General Permit, the project applicant shall prepare and implement a SWPPP designed to reduce potential adverse impacts on surface water quality through the project construction period. The SWPPP shall be designed based on the assessed Project Risk Level to address the following objectives: (1) all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled; (2) where not otherwise required to be under a RWQCB permit, all non-stormwater discharges are identified and eliminated, controlled, or treated; (3) site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best/Best Conventional Pollutant Control Technology (BAT/BCT) standard; (4) calculations and design details as well as BMP controls for site run-on are complete and correct; and (5) stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.</p> <p>The SWPPP shall be prepared by a Qualified SWPPP Developer. The SWPPP shall include the minimum BMPs required for the assessed Project Risk Level. The Project Risk Level would be</p> |                                |                                       |                       |           |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>determined as part of the Notice of Intent for coverage under the Construction General Permit. These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, infiltration and runoff controls, and BMP inspection/maintenance/repair activities. The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations and, as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters (receiving water monitoring is only required for some Risk Level 3 dischargers). A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities. If the project is Risk Level 2 or 3, the project applicant shall also prepare a Rain Event Action Plan as part of the SWPPP.</p> <p>The following are the types of BMPs that shall be implemented for the proposed project:</p> <ul style="list-style-type: none"> <li>• Erosion Control BMPs</li> <li>• Sediment Control BMPs</li> <li>• Wind Erosion Control BMPs</li> <li>• Tracking Controls</li> <li>• Non-Stormwater Controls</li> <li>• Waste Management and Materials Pollution Control BMPs</li> </ul> |                                |                                       |                                     |                                     |
| <p>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A project would normally have a significant impact on groundwater supplies if it were to result in a demonstrable and sustained reduction of groundwater recharge capacity or change the potable water levels sufficiently that it would reduce the ability of a water utility to use the groundwater basin for public water supplies or storage of imported water, reduce the yields of adjacent wells or well fields, or adversely change the rate or direction of groundwater flow. Reference: 18 (Thresholds G.2, G.3)</p>  |                                |                                       |                                     |                                     |
| <p>Explanation: Dewatering activities may be required during excavation both for the side channel in the LA River and the Water Wheel housing pit. However, this activity would remove only shallow groundwater for a short period of time during construction of the proposed project and would not affect groundwater supplies that are drawn from deeper segments of the aquifer.</p> <p>The proposed project site overlays the Central Los Angeles groundwater basin. Redeveloping the mostly paved site would not affect recharge as natural recharge to the basin. Consequently there would be no impact on groundwater supplies.</p>  |                                |                                       |                                     |                                     |
| <p>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project resulted in a substantial alteration of drainage patterns that resulted in a substantial increase in erosion or siltation during construction or operation of the project. Reference: 18 (Thresholds G.1, G.2)</p>   |                                |                                       |                                     |                                     |

| <b>Issues</b>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>Explanation: During construction of the proposed project, construction activities would result in land-disturbing activities such as demolition of existing pavement, excavation, and trenching for utility infrastructure installation. These types of construction activities could result in minor temporary alterations of drainage patterns that expose soil to increased rates of erosion during construction periods. These minor alterations to drainage patterns would not result in significant erosion or siltation on- or off site, with the implementation of mitigation measure HYD-1.</p> <p>Post-construction (e.g., operational)—though a new side channel to the river would be present on the project site, the overall drainage patterns would not be greatly altered from their current state. The post-construction flows through the side channel would not substantially increase rates of erosion or siltation. Additionally erosion from stormwater runoff would not increase because the impermeable area of the site would remain the same or be reduced. Impacts would be less than significant.</p> |                                |                                       |                                     |                                     |
| <p>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project resulted in increased runoff volumes during construction or operation of the proposed project that would result in flooding conditions affecting the project site or nearby properties. Reference: 18 (Thresholds G.1)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: As stated above, the proposed project would not substantially change the current drainage pattern or increase runoff volume. The flows to the existing stormwater drainage system would stay the same or slightly decrease, so the capacity of the existing system would not be exceeded as a result of the proposed project. There are no new stormwater pollution sources associated with the project, so the proposed project would not result in substantial additional polluted runoff. Therefore, proposed project impacts associated with stormwater quantity and quality would be less than significant.</p>   |                                |                                       |                                     |                                     |
| <p>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the volume of runoff were to increase to a level that exceeded the capacity of the storm drain system serving a project site. A significant impact may also occur if the proposed project would substantially increase the probability that polluted runoff would reach the storm drain system. Reference: 18(Thresholds G.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: See item 9 (d) above</p>   |                                |                                       |                                     |                                     |
| <p>f) Otherwise substantially degrade water quality?</p>   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if a project included potential sources of water pollutants and potential to substantially degrade water quality. Reference: 18 (Thresholds G.3)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: See item 9(a), above</p>   |                                |                                       |                                     |                                     |
| <p>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project places housing within a 100-year flood zone. Reference: 18 (Thresholds G.1 to G.4)</p>   |                                |                                       |                                     |                                     |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>Explanation: The water wheel site is located within FEMA unshaded Zone X (Reference: 34), which is defined as an area outside the 0.2% annual chance floodplain (i.e., 500-year floodplain). However, the diversion site, being within the LA River, which is designed as a flood control channel, is by necessity within a Special Flood Hazard Area subject to a 1% annual chance of flooding. The proposed project would involve construction and operation of a water wheel and the appurtenant structures required to divert water from the LA River and therefore would not place housing in a 100-year flood hazard area. Consequently, there would be no impact.</p> <p>Reference: 36 (FIRM 060137 Panel 1628 F)</p>  |                                |                                       |                                     |                          |
| <p>h) Place within a 100-year flood hazard area structures that would impede or redirect floodflows?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were located within a 100-year flood zone and would impede or redirect floodflows. Reference: 18 (Thresholds G.4)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: No structures associated with the proposed project would be located in the 100-year flood hazard area other than the inflatable dam and new side channel that would connect to the LA River, The inflatable dam that would be placed in the LA River as part of the proposed project would be designed to pool water during low flow conditions. When storms are predicted to occur in the contributing area to the proposed project site, programmed controls would automatically lower the dam and release stored water so that floodflows can pass unimpeded with no impact on the pre-project water surface elevations. Controls would be programmed to have redundancy to ensure the dam is in the lowered position when elevated river flows reach the area of the proposed project site.</p> <p>All proposed designs would be approved by the USACE through the Section 408 permit process. It is anticipated that the proposed project would qualify for a Minor 408 because it is not expected to permanently alter the hydraulic capacity of the LA River. As part of the permitting process, USACE's existing HEC-RAS model, which is used by FEMA to determine flood hazard areas, would be used to evaluate all channel alterations, thereby ensuring that they would not result in changes to the water surface elevation during flood conditions. Potential impacts related to impeding or redirecting floodflows would be less than significant.</p> <p>Reference: 27 (NavigateLA)</p> |                                |                                       |                                     |                          |
| <p>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were located in an area where a dam or levee could fail, exposing people or structures to significant risk of loss, injury or death. Reference: 18 (Thresholds E.1, G.3)</p>   |                                |                                       |                                     |                          |
| <p>Explanation: The proposed project is located at the edge of a dam failure inundation zone. This is not expected to create a significant risk for visitors to the site because inundation depths are shallower at the borders of inundation areas and areas outside of the inundation area are within less than 0.5 mile of the project site in a direction that is easily accessible by foot.</p> <p>The structures that would be installed within the dam failure inundation area could sustain flood damage in the event of a dam failure. The water wheel structure would be exposed to water during operations, and the damage to this structure from being exposed to flood waters would likely be minor. Ancillary buildings and facilities could sustain water damage during a flood event. These structures would not be considered critical infrastructure and this impact would be considered less than significant.</p> <p>Reference: Safety Element</p>   |                                |                                       |                                     |                          |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| j) Inundation by seiche, tsunami, or mudflow?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project were located in an area with inundation potential due to seiche, tsunami, or mudflow. Reference: 18 (Thresholds E.1)</p>  |                                |                                       |                                     |                                     |
| <p>Explanation: Seiches are large surface waves generated in enclosed bodies of water (including human-made water storage facilities) in response to ground shaking. As discussed in 9(i), above, the project site is located at the edge of a dam-failure inundation zone, which could be inundated as result of dam failure. The risk of a seiche threatening the proposed project is remote because of the distance that separates the project site from an enclosed water body capable of producing a seiche, and construction and operation of the water wheel would not increase this risk. Impacts related to seiches would be less than significant.</p> <p>The proposed project site would not be affected by tsunamis or mudflows given its considerable distance from the ocean (greater than 20 miles) and landslide-prone areas (greater than 2 miles), respectively. No impact would occur.</p> <p>Reference: 20 (Safety Element)</p>                       |                                |                                       |                                     |                                     |
| <p><b>10. LAND USE AND PLANNING</b> – Would the project:</p>  |                                |                                       |                                     |                                     |
| a) Physically divide an established community?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were sufficiently large or otherwise configured in such a way as to create a physical barrier within an established community. Reference: 18 (Thresholds H.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project involves the construction and operation of a water wheel and appurtenant structures required to divert water from the LA River. No changes to surrounding land uses and no barriers that would divide the community are proposed. Additionally, a goal of the proposed project is to enhance pedestrian connections between the surrounding community, the State Park and the LA River,. Therefore, implementation of the proposed project would connect communities rather than divide them. No impact would occur.</p>   |                                |                                       |                                     |                                     |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were inconsistent with the General Plan, or other applicable plan, or with the site's zoning if designated to avoid or mitigate a significant potential environmental impact. Reference: 18 (Thresholds H.1, H.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The Central City North Community Plan component of the general plan for the City of Los Angeles regulates the land uses in the project area and designates the project area for Public Facilities. The proposed project would be consistent with the Community Plan's stated goals and objectives related to public facilities, including park and recreation facilities, which are:</p> <ol style="list-style-type: none"> <li>1. To utilize the location, characteristics, and timing of public facility and utility development as a tool in achieving planned land use patterns.</li> <li>2. To conserve, maintain and better utilize existing recreation and park facilities that promote the recreational needs of the community.</li> <li>3. Improve the utilization and development of recreational facilities at existing parks.</li> <li>4. Pursue resources to clean up and activate land that could be used for public recreation.</li> </ol> |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant | No Impact |
|---|--------------------------------|---------------------------------------|-----------------------|-----------|
| <p>The land use designations of the project site are Public Facilities, with corresponding zoning of PF-1XL, and Open Space, with the corresponding zoning of OS-1XL. Such zoning allows public facility uses as well as joint public and private development uses in even the most restrictive adjoining zones, including the adjacent OS zone. This zone allows recreational facilities by right, including aesthetic recreational installations. Certain public service uses in the PF zone are allowed by CUP only, including appurtenant structures adjacent to covered and uncovered reservoirs, such as water treatment facilities, water pumping facilities, water distribution facilities, and water filtration plants. The utilitarian functions of the proposed project (i.e., to divert and convey water as well as provide natural water treatment for non-potable park use) are not proposed at the scale or intensity that would require approval by CUP. Therefore, the proposed project would be consistent with land use plans and policies, and a less-than-significant impact would occur.</p> <p>The proposed project is also consistent with the Los Angeles River Revitalization Master Plan's recommendations, including the proposed placement of inflatable rubber dams along the river for aesthetic and/or recreational purposes where prudent. Further, the proposed project is consistent with the following goals of the Master Plan:</p> <ol style="list-style-type: none"> <li>1. Connect Neighborhoods to the River.</li> <li>2. Extend Open Space, Recreation, and Water Quality Features into Neighborhoods.</li> <li>3. Enhance River Identity.</li> <li>4. Incorporate Public Art Along the River.</li> <li>5. Make the River the Focus of Activity.</li> <li>6. Provide Opportunities for Educational and Public Facilities.</li> <li>7. Celebrate the Cultural Heritage of the River.</li> </ol> <p>Further, the proposed project is consistent with the Cornfield Arroyo Seco Specific Plan. The Land Use designation of the project site under the Specific Plan (Subarea 1, block 21B) is Public Facility, and the Zoning District is Greenway Zone. The floor area ration (FAR) limit is 1.5:1. The proposed project is wholly in keeping with the goals and objectives of the Specific Plan as well as the expressed purposes under Administration and Open Space. There is a provision for an Administrative Clearance for certain projects, and the project would conform to Section 1.2 C 2 h of the Specific Plan, which reads:</p> <p style="padding-left: 40px;">Projects with less than 50,000 gross square feet of nonresidential floor area, that conform to the provisions contained in Sections 2.1-2.8 of this Plan and that do not require an Allocation of Floor Area Rights and are not located on a block identified in the Maximum Block Length Map that requires the introduction of a paseo.</p> <p>The project is consistent with the following goals of the Plan to:</p> <ol style="list-style-type: none"> <li>1. Transform an underserved and neglected vehicular-oriented industrial and public facility area into a cluster of mixed-use, pedestrian-oriented and aesthetically pleasing neighborhoods.</li> <li>2. Increase access to open space.</li> <li>3. Re-connect historical communities.</li> <li>4. Reduce the use of energy and potable water, improve the ecology surrounding the Los Angeles River Watershed and Arroyo Seco, create connections from the community to the River and Arroyo Seco, and support the Los Angeles River Revitalization Master Plan (LARRMP).</li> <li>5. Provide places for people to socialize, including parks, sidewalks, courtyards and plazas that are combined with shops and services.</li> <li>6. Provide adequate public recreational open space within walking distance of residents and employees, and to integrate public are and contribute to the civic and cultural life of the City.</li> </ol> <p>The project may require a minor subdivision application to transfer land ownership from the current</p> |                                |                                       |                       |           |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>property owner to the applicant. This application would be solely for the purpose of sale/transfer of title to the land and would not involve any future plans to redevelop the property. Therefore, no land use impact is anticipated with respect to this application.</p> <p>See discussion in Section IV. Reference: 20 (ZIMAS), 18 (General Plan), Add citations for Los Angeles River Revitalization Master Plan and Cornfield Arroyo Seco Specific Plan</p>   |                                |                                       |                                     |                                     |
| <p>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project were located within an area governed by a habitat conservation plan or natural community conservation plan and would conflict with such plan. Reference: 18 (Thresholds H.1, H.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: Please see the discussion for Item 4(f), above. No impact would occur.</p>  |                                |                                       |                                     |                                     |
| <p><b>11. MINERAL RESOURCES</b> – Would the project:</p>  |                                |                                       |                                     |                                     |
| <p>a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the project were located in an area used or available for extraction of a regionally important mineral resource, if the project converted an existing or potential present or future regionally important mineral extraction use to another use, or if a project affected access to such a site. Reference: 18 (General Plan), 18 (Thresholds E.4)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The project site is not located within a Mineral Resource Zone (MRZ)-2 zone, which indicates the inclusion of known mineral deposits. As described in the Conservation Element of the general plan, the primary mineral resources within the city are rock, gravel, and sand deposits, and the only available deposit site within the city is the Tujunga alluvial fan, which is more than 10 miles from the project site. The project site is not located within an area known to contain mineral resources, and no impacts with respect to mineral resources would occur as a result of construction and operation of the proposed project.</p> |                                |                                       |                                     |                                     |
| <p>b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if a project were located in an area used or available for extraction of a locally important mineral resource and the project converted such a resource to another use or affected access to such a site. Reference: 18 (General Plan), 18 (Thresholds E.4)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: As discussed in Item 11(a), above, the only available mineral resource extraction area is the Tujunga alluvial fan, which is more than 10 miles from the project site. Construction and operation of the proposed training facility would have no impact with respect to the availability of mineral resources.</p>   |                                |                                       |                                     |                                     |
| <p><b>12. NOISE</b> – Would the project result in:</p>  |                                |                                       |                                     |                                     |
| <p>a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the project generated noise levels exceeding the standards for ambient noise as established by the General Plan and Municipal Code or exposed persons to that increased level of noise. Reference: 18 (General Plan Noise Element), 18 (Thresholds Section I)</p>  |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>The following are brief definitions of noise terminology used in this evaluation:</p> <ul style="list-style-type: none"> <li>• Sound. A vibratory disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.</li> <li>• Noise. Sound that is loud, unpleasant, unexpected, or otherwise undesirable.</li> <li>• Decibel (dB). A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to reference sound pressure amplitude. The reference pressure is 20 micropascals.</li> <li>• A-Weighted Decibel (dBA). An overall frequency-weighted sound level in decibels, which approximates the frequency response of the human ear.</li> <li>• Equivalent Sound Level (<math>L_{eq}</math>). The average of sound energy occurring over a specified period. In effect, <math>L_{eq}</math> is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that occurs during the same period.</li> <li>• Maximum Sound Level (<math>L_{max}</math>). The maximum sound level measured during a measurement period.</li> </ul> <p>Explanation: The proposed project would result in increased noise levels associated with excavation and installation of project components, which could result in increased noise levels at nearby sensitive receivers. The Bureau of Engineering Standard Project Specifications for public works construction is designed to comply with the City's General Plan Noise Element and related Municipal Code Noise Ordinance. Construction of the proposed project would take approximately 8 months to complete.</p> <p>The proposed project would most likely result in temporary increases in ambient noise levels in the local community during construction. The loudest maximum noise levels would occur during periods of pile driving at the water wheel site, which can produce noise levels of up to 101 dBA at a distance of 50 feet (Reference: 46). Apart from periods of pile driving, the three loudest equipment noise sources at the project site would include a crane, a loader, and a dump truck. The loudest equipment type among these is a dump truck, which typically produces a maximum sound level of 88 dBA at 50 feet. Loaders typically produce a maximum sound level of 85 dBA, and cranes produce a level of 83 dBA at 50 feet (Reference: 46). Accounting for typical equipment utilization factors (i.e., each piece of equipment would typically operate for 40% of a given hour) (Reference: 54), the predicted combined sound level of the equipment operating simultaneously is 87 dBA <math>L_{eq}</math>(1 hour) at 50 feet. The nearest building façade belongs to an art studio complex, which is associated with commercial use. Construction noise levels at the building façade nearest to the project site could be up to 80 dBA <math>L_{max}</math> during water wheel site and dam construction and up to 93 dBA <math>L_{max}</math> during periods of pile driving. However, noise from construction would be temporary, intermittent, and would cease once work is complete. During construction, the noise environment at park locations located on the other side of the LA River would be overshadowed by noise from local traffic. Additional traffic associated with workers' trips and construction equipment deliveries to and from the site would not result in a noticeable increase in traffic noise levels in the surrounding area.</p> <p>There are no residences located within 500 feet of the project site, so standards in the City municipal code for maximum allowable construction noise levels in residential areas would not be exceeded, and there would be no impact at residences in the local area. Because of the temporary nature of site construction and because the proposed project would not affect nearby residential areas, this noise impact would be less than significant. See discussion in Section IV.</p> |                                |                                       |                                     |                          |
| <p>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the project were to expose persons to or generate excessive groundborne vibration or groundborne noise levels. Reference: 18 (General Plan Noise Element), 18 (Thresholds Section I)</p>   |                                |                                       |                                     |                          |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                |
|---|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| <p>Explanation: Construction activities associated with the project could generate groundborne vibration from impact pile driving and the use of heavy equipment, including a TBM. Groundborne vibration could be intermittently perceptible in commercial structures adjacent to the project site. These effects would be temporary and short-term, and would cease once project work is complete.</p> <p>Based on available TBM vibration data from L.A. area measurements, groundborne vibration levels during TBM operations for an average tunnel depth of 50 feet were well below the threshold of impact for TBM operation (0.04 inch per second peak particle velocity [ppv]) (City of Los Angeles 2005). Therefore, groundborne vibrations from the TBM for the project are generally anticipated to be below the threshold for a significant impact.</p> <p>Groundborne vibration levels associated with impact pile driving could exceed the vibration threshold associated with non-engineered timber and masonry buildings (0.2 inch per second ppv) at locations within 75 feet of pile driving sites (Reference: 46). Construction, including excavation and truck loading activities associated with the operation of heavy equipment at the project site may generate localized groundborne vibration and noise. However, vibration from non-impact construction activity is typically below the threshold of perception when the activity is more than about 50 feet from the receiver. The nearest building façade is approximately 100 feet away from the water wheel site, and the nearest residence is more than 500 feet away from the project site. Because groundborne vibration from construction would not exceed building damage thresholds and would not result in perceptible vibration at local residences, this impact is considered to be less than significant.</p> |                                |                                       |                                     |                          |
| <p>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the project were to substantially and permanently increase the ambient noise levels in the project vicinity above levels existing without the proposed project. Reference: 18 (General Plan Noise Element), 18 (Thresholds Section I)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: Refer to the discussion under 12(a), above. A building located adjacent to the dam would house two compressors and supply air to inflate the dam and/or operate dam gates during times of low water flow in the LA River. At a distance of 50 feet, the noise level during operation of the compressors would be 63 dBA at 50 feet (assuming 20 dB of nominal noise attenuation from the building). A level of this magnitude would most likely be overshadowed by existing ambient noise at the nearest building façade. Water sounds from the water wheel may be audible in the ambient noise environment once the project is complete.</p> <p>The proposed project is not anticipated to generate enough additional traffic to result in a noticeable increase in noise levels at surrounding receivers. Impacts related to permanent increases in ambient noise would be less than significant.</p>   |                                |                                       |                                     |                          |
| <p>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>Standard: A significant impact may occur if the project were to create a substantial temporary or periodic increase in the ambient noise levels in the project vicinity above levels existing without the proposed project. Reference: 18 (General Plan Noise Element), 18 (Thresholds Section I)</p>  |                                |                                       |                                     |                          |
| <p>Explanation: Please refer to the discussion for 12(a), above. Construction of the proposed project would temporarily increase noise levels in the immediate area of the project site but would comply with the Bureau of Engineering Standard Project Specifications for Public Works Construction. There are no residences within 500 feet of the project site that would be affected by the temporary increase in noise levels. Operationally, the use of the proposed water wheel would not introduce a temporary and periodic noise increase at neighboring sites. Therefore, noise impacts from the construction and operation of the proposed project are considered to be less than significant.</p>  |                                |                                       |                                     |                          |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: Reference: 18 (Thresholds Section I), 26 (NavigateLA)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The project site is located approximately 12 miles from Bob Hope Airport. It does not lie within the airport master plan area. Because the proposed project site would not be located within 2 miles of an airport and there are no sensitive receptors in the immediate area, it would not expose residents or workers in the area to airport noise in addition to the construction noise that would occur as a result of the project. No impact would occur.</p>   |                                |                                       |                                     |                                     |
| <p>f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: Reference: 18 (Thresholds Section I), 26 (NavigateLA)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: No private airstrips are located within the vicinity of the project site. Therefore, no construction or operational impacts would occur.</p>   |                                |                                       |                                     |                                     |
| <p><b>13. POPULATION AND HOUSING</b> – Would the project:</p>  |                                |                                       |                                     |                                     |
| <p>a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if population growth is induced in an area, either directly or indirectly, such that the population of the area may exceed the planned population of that area. Reference: 18 (Thresholds Section J.1)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project involves the construction and operation of a water wheel and appurtenant structures required to divert water from the LA River. The project would not include the construction of homes or businesses. Therefore, the proposed project would not directly increase the project area's population. However, an objective of the project is to encourage revitalization of the area through environmentally friendly artistic improvements, and, therefore, the project could indirectly induce business development and population growth. This indirect effect, however, is expected to be less than significant.</p> |                                |                                       |                                     |                                     |
| <p>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: Normally, there would be no significant impact if the project will not result in a net loss of 15 single-family dwellings or 25 dwellings in multi-family housing. Reference: 18 (Thresholds J.1 and J.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project would not displace any housing because no housing is currently located on the project site. Therefore, no impact would occur.</p>   |                                |                                       |                                     |                                     |
| <p>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: Normally, there would be no significant impact if the project will not result in a net loss of 15 single-family dwellings or 25 dwellings in multi-family housing. Reference: 18 (Thresholds J.2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project would not displace any people or create a need for housing elsewhere because no people or housing are currently located on the project site. Therefore, no operational or construction impacts related to replacement housing would occur.</p>  |                                |                                       |                                     |                                     |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|--|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <b>14. PUBLIC SERVICES –</b>   |                                |                                       |                          |                                     |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:  |                                |                                       |                          |                                     |
| i) Fire protection?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the City of Los Angeles Fire Department (LAFD) could not adequately serve the proposed project based on response time, access, or fire hydrant/water availability. Reference: 18 (Thresholds K.2)  |                                |                                       |                          |                                     |
| Explanation: The project site is served by LAFD Battalion 2 at Station No. 1, located at 2230 Pasadena Avenue, approximately 0.5 mile to the north. The proposed project would not result in an increase in population and thus would not generate a need for new or altered fire protection facilities. The proposed project would be constructed in accordance with all applicable fire codes set forth by the state Fire Marshall and LAFD. Therefore, the proposed project would not be considered a fire hazard and would not exceed the capacity of LAFD with respect to serving the site or other areas with existing fire protection services. The nearest local fire responders would be notified, as appropriate, of traffic control plans during construction so as to coordinate emergency response routing during construction work. Construction and operation of the proposed project would not create hazards that would increase the need for fire protection. Therefore, no impacts would occur. |                                |                                       |                          |                                     |
| ii) Police protection?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project were to result in an increase in demand for police services that would exceed the capacity of the police department responsible for serving the site. Reference: 18 (Thresholds K.1)  |                                |                                       |                          |                                     |
| Explanation: The project site is served by the Los Angeles Police Department's (LAPD's) Central Division, Central Community Police Station, located at 251 East 6 <sup>th</sup> Street. Typically, demand for additional police protection is created when there is an increase in the residential population in an area. The proposed project would not require additional police protection beyond what is currently provided in the area because there would be no population growth. The nearest local police station would be notified, as appropriate, of traffic control plans to coordinate emergency response routing during construction work. During project operation, an increase in calls to police is not anticipated. Therefore, no impact would occur as a result of construction or operation of the project.  |                                |                                       |                          |                                     |
| iii) Schools?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project includes substantial employment or population growth that could generate demand for school facilities that exceeded the capacity of the school district responsible for serving the project site. Reference: 18 (Thresholds K.3)  |                                |                                       |                          |                                     |
| Explanation: The project site is located within approximately 0.5 to 1 mile of two schools: Cathedral High School and Sacred Heart High School. The proposed project does not include a housing component, and it would not increase employment. The proposed project would not induce growth directly or indirectly and therefore would not increase the demand for schools in the area. Construction and operation of the proposed project would not directly or indirectly increase student enrollment levels. No impacts would occur.  |                                |                                       |                          |                                     |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <b>Issues</b>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| iv) Parks?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if recreational and park services could not accommodate the population increase resulting from implementation of the proposed project. Reference: 18 (Thresholds K.4)  |                                |                                       |                                     |                                     |
| Explanation: As expressed in 14(a)(1)–14(a)(3), the proposed project would not induce growth and would not strain park services through direct or indirect means. No impact would result from construction and operation of the proposed project.   |                                |                                       |                                     |                                     |
| v) Other public facilities?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: Projects that do not result in a net increase of 75 residential units normally would not have a significant impact on public libraries. Reference: 18(Thresholds K.5)   |                                |                                       |                                     |                                     |
| Explanation: The project would not result in a net increase of 75 residential units or more. Construction and operation of the proposed project would result in no impact on other public facilities.   |                                |                                       |                                     |                                     |
| <b>15. RECREATION –</b>   |                                |                                       |                                     |                                     |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: A significant impact may occur if the proposed project includes substantial employment or population growth that may generate demand for public park facilities that exceed the capacity of existing parks. Reference: 18 (Thresholds K.4)  |                                |                                       |                                     |                                     |
| Explanation: The proposed project would not result in an increase in population (see 13, above). As discussed for 14, above, the project would neither induce population growth by providing housing nor increase long-term employment. The proposed water wheel has the potential to become a new public art focal point for sightseers when visiting the bridge. This may result in a minimal amount of new visitors to the adjacent park. However, the proposed project itself would not significantly increase demand on park services. Current users of the State Park facility may be affected during construction of the proposed project. The effect would be considered temporary and therefore less than significant. |                                |                                       |                                     |                                     |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: Reference: 18 (Thresholds K.4)  |                                |                                       |                                     |                                     |
| Explanation: The proposed project would not include or require a recreational facility. No impact would occur.  |                                |                                       |                                     |                                     |
| <b>16. TRANSPORTATION/TRAFFIC – Would the project:</b>  |                                |                                       |                                     |                                     |
| a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: A significant impact may occur if the proposed project causes an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. Reference: 18 (Thresholds L.1 to L.4, L.8)   |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|---|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| <p>Explanation: Construction activity would generate short-term construction-related vehicles; however, given the relatively short duration of the construction period and small scale of the construction work, construction of the project would not cause a substantial increase in construction traffic that would significantly reduce the effectiveness of the transportation network in the vicinity of the project. In addition, the applicant is committed to implement the construction traffic control as required by the Work Area Traffic Control Handbook (Reference 2). Therefore, traffic impacts related to construction of the proposed project would be less than significant.</p> <p>Operation of the project may generate a small amount of traffic from water wheel visitors; however, given the existing traffic flow and adjacent uses along Baker Street, the small increase in traffic volumes would not reduce the overall effectiveness of the transportation network. Impacts associated with operation of the proposed project would be less than significant (see discussion in Section IV).</p> |                                |                                       |                                     |                                     |
| <p>b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service (LOS) standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <p>Standard: A significant impact may occur if the proposed project causes a conflict with an applicable congestion management program. Reference: 18 (Thresholds L.1 to L3)</p>  |                                |                                       |                                     |                                     |
| <p>Explanation: The roadways immediately surrounding the project site are not included in Metro's 2010 CMP. The relatively small number of trips that would be generated under the proposed project would occur primarily in non-peak periods. Therefore, impacts related to congestion and levels of service would be less than significant during both construction and operation of the proposed project.</p>  |                                |                                       |                                     |                                     |
| <p>c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project changes air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.</p>  |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project would not include a heliport. The project site is located approximately 10 miles from the nearest airport. Therefore, no impact on air traffic patterns would occur.</p>   |                                |                                       |                                     |                                     |
| <p>d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project substantially increases road hazards due to a design feature or incompatible uses. Reference: 18 (Thresholds L.5)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The proposed project would not require changes to local public roads or introduce incompatible uses. No new public roads would be constructed, and any on-site improvements would be designed to avoid hazardous features. Therefore, no impact would occur.</p>  |                                |                                       |                                     |                                     |
| <p>e) Result in inadequate emergency access?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <p>Standard: A significant impact may occur if the proposed project results in inadequate emergency access. Reference: 18 (Thresholds L.5, L.8, and J2)</p>   |                                |                                       |                                     |                                     |
| <p>Explanation: The project does not propose any permanent changes to the surrounding street system. Furthermore, it would not introduce incompatible vehicles to surrounding roadways. Temporary traffic control elements would be subject to review, including a safety review and approval by the Los Angeles Department of Transportation. The proposed project would not prohibit emergency access to existing facilities in the area. Therefore, no impact would occur.</p>   |                                |                                       |                                     |                                     |

| <h1>Issues</h1>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities or otherwise decrease the performance or safety of such facilities?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: A significant impact may occur if the proposed project conflicts with adopted policies, plans, or programs supporting alternative transportation. Reference 18 (Thresholds L.6)  |                                |                                       |                                     |                                     |
| Explanation: The Southern California Regional Rail Authority's (SCRRA's) Metrolink rail line and an Amtrak rail line are located adjacent to the project site. Railroad traffic may be affected temporarily by construction activities. Once constructed, the proposed project would not result in disruptions to SCRRA services. Furthermore, the proposed project would not conflict with any adopted policies, plans, or programs. Impacts associated with construction and operation of the proposed project would be less than significant.   |                                |                                       |                                     |                                     |
| <b>17. UTILITIES AND SERVICE SYSTEMS</b> – Would the project:  |                                |                                       |                                     |                                     |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project exceeds wastewater treatment requirements of the local regulatory governing agency. Reference: 18 (Thresholds M.2)  |                                |                                       |                                     |                                     |
| Explanation: The proposed project would involve construction and operation of a water wheel and the appurtenant structures required to divert water from the LA River. No uses or activities that would generate wastewater or require wastewater treatment are proposed as part of the project. The proposed project would have no impact on the wastewater treatment requirements of the Los Angeles RWQCB. Therefore, no impact would occur.  |                                |                                       |                                     |                                     |
| b) Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project were to result in the need for new or expanded water or wastewater treatment facilities, which could result in an adverse environmental effect that could not be mitigated. Reference: 18 (Thresholds G.1, M.1 and M.2)   |                                |                                       |                                     |                                     |
| Explanation: The proposed project would involve construction and operation of a water wheel and the appurtenant structures required to divert water from the LA River. No uses or activities that would generate wastewater or consume potable water are included as part of the project. Therefore, the proposed project would not require or result in the construction of new or expanded water or wastewater treatment facilities. No impact would occur.  |                                |                                       |                                     |                                     |
| c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the volume of stormwater runoff from the proposed project increases to a level exceeding the capacity of the storm drain system serving the project site. Reference: 18 (Thresholds G.1 and M.2)   |                                |                                       |                                     |                                     |
| Explanation: The project site is in an urbanized area that is adequately served by the existing storm drain system. The LA River serves as storage for high water flows from the adjacent area during storm events. The design of the proposed project would maintain flood storage capacity, thereby not affecting the flood control function. The proposed project would not increase the volume of stormwater runoff. Furthermore, the project would not result in the LA River receiving any flows beyond those it currently accepts. Operation of the proposed project would not create substantial amounts of additional runoff that would require construction of new stormwater drainage facilities or the expansion of existing facilities. Therefore, no impact would occur. |                                |                                       |                                     |                                     |

INITIAL STUDY  
PUBLIC WORKS – BUREAU OF ENGINEERING

| <b>Issues</b>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant               | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project's water demands would exceed the existing water supplies that serve the site. Reference: 18 (Thresholds M.1)  |                                |                                       |                                     |                                     |
| Explanation: The Los Angeles Department of Water Power (LADWP) provides potable water to the project area and vicinity. The proposed project would involve construction and operation of a water wheel and appurtenant water diversion structures. No uses or activities resulting in the consumption of potable water would be included as part of the project. The LA River is not a source of potable water, and the water rights application required to appropriate water from the river is for non-potable, irrigation use in the adjacent State Park and other nearby recreational facilities, including the Downey Recreation Center, and the proposed Albion Dairy Park. Enough water is currently available from the LA River to supply the irrigation needs of the parks, and the water rights application, if approved, would not interfere with any other user's right to draw water from the river. Therefore, implementation of the proposed project would not require new or expanded water entitlements. No impact would occur. |                                |                                       |                                     |                                     |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Standard: A significant impact may occur if the proposed project would increase wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded.   |                                |                                       |                                     |                                     |
| Explanation: Please refer to the discussion for 17(a), above. No impacts would occur.  |                                |                                       |                                     |                                     |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: A significant impact may occur if the proposed project were to increase solid waste generation to a degree that existing and projected landfill capacities would be unable to accommodate the additional waste. Reference: 18 (Thresholds M.3), 29 (Countywide Siting Report)  |                                |                                       |                                     |                                     |
| Explanation: The proposed project would not produce any solid waste during operation. Construction activities may generate minor amounts of solid waste, but those small amounts would be recycled or disposed of in existing landfills. Adequate landfill capacity exists to accommodate any construction debris. If disposal would occur at an off-site location, it would be disposed of in accordance with City regulations. City standards for public works require demolition debris to be recycled, where feasible; therefore, impacts associated with construction debris would be less than significant. Additionally, the City's Green Building Code has provisions, and Leadership in Energy and Environmental Design (LEED) accreditation has minimum requirements for the reduction of waste. After construction, the project would not generate substantial amounts of solid waste. Therefore, through compliance with the applicable regulations, impacts related to solid waste disposal would be less than significant.         |                                |                                       |                                     |                                     |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard: A significant impact may occur if the proposed project would generate solid waste that was in excess of or not disposed of in accordance with applicable regulations. Reference: 18 (Thresholds M.3), 29 (Countywide Siting Report)  |                                |                                       |                                     |                                     |
| Explanation: Disposal of all solid waste generated by the proposed project would comply with federal, state, and local statutes and regulations related to solid waste. The project would be designed, constructed, and operated to follow all applicable laws, regulations, ordinances, and formally adopted city standards. Impacts would be less than significant.  |                                |                                       |                                     |                                     |

| <h1>Issues</h1>   | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|---|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <b>18. MANDATORY FINDINGS OF SIGNIFICANCE --</b>  |                                |                                       |                          |                                     |
| <p>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of major periods of California history or prehistory?</p>  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>            |
| <p>Comment: As discussed under IV(a), the proposed project could result in impacts on nesting birds and bats if these species are present during construction. Mitigation measure BIO-1 provides avoidance and minimization measures to protect nesting birds. Mitigation measure BIO-2 provides avoidance and minimization measures for roosting and forage of bats. Therefore, impacts would be considered less than significant.</p> <p>As stated in 11(b), the proposed project would not affect known cultural resources but could result in significant adverse impacts due to the disturbance of unknown archaeological resources, paleontological resources, and human remains interred outside of a formal cemetery. With implementation of mitigation measures CR-1, CR-2, and CR-3, the project would not eliminate important examples of the major periods of California history or prehistory.</p>   |                                |                                       |                          |                                     |
| <p>b) Does the project have impacts that are individually limited but cumulatively considerable? (“cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</p>  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Comment: The proposed project would be located across the street from the Los Angeles State Historic Park. Improvements to the park associated with the Los Angeles State Historic Park Master Development Plan (LASHPMDP) were approved in April 2012, and a final environmental impact report (EIR) for the LASHPMDP was certified at that time. Development plans approved for the park would be implemented by 2035, as funding allows, and may include the following: event spaces; a welcome and operations buildings; an elevated walkway with observation deck; hardscaped walkways and/or plazas; jogging and interpretive trail loops; a children's play area and amphitheater; unstructured play, work-out, and group gathering areas; surface parking lots; a pedestrian pathway; bioswales; a constructed/demonstration wetlands or habitat area; new trees, landscaping and turf areas; fire access and service road(s); and new automated irrigation systems. According to the final EIR, the proposed project would result in significant unavoidable adverse impacts related to noise from fireworks displays during special events, only, but would not provide a cumulatively considerable contribution to any significant cumulative impacts, including noise. The proposed water wheel is fully compatible with the plan's goals to provide recreational and educational opportunities in the area and would not result in any significant impacts, including a significant source of construction or operation noise. The proposed water wheel would also provide a source of non-potable irrigation water to the park and, as a result, reduce the park's water demand, which is an environmental benefit. As a result, impacts of the project would not result in a cumulatively considerable contribution to any significant cumulative impacts identified in conjunction with LASHPMDP implementation. Any future environmental impacts associated with park improvements that were not analyzed in the LASHPMDP EIR will be analyzed in future CEQA documentation, if necessary, and mitigated as feasible.</p> <p>Reasonably foreseeable current and future projects within proximity to the project site include the Albion Dairy Park project located at 1772 North Spring Street—approved in 2011 and currently in the development stage; excavation permits at 1716 North Spring Street—expected to be completed in September of 2013, and seismic retrofits of bridges and viaducts along the LA River, located at North Main Street, Spring Street, Riverside Drive, and Taylor Yard to meet state seismic requirements—</p> |                                |                                       |                          |                                     |

| <b>Issues</b>  | Potentially Significant Impact | Less than Significant with Mitigation | Less than Significant    | No Impact                           |
|--|--------------------------------|---------------------------------------|--------------------------|-------------------------------------|
| <p>expected to be completed in 2016. None of these projects are anticipated to result in significant impacts with respect to construction or operations. Any retrofit work on historic structures would conform to the Secretary of Interior's Standards for Rehabilitation and would have a less-than-significant impact. The proposed water wheel would not have an impact on any of these structures with respect to historic resources and would therefore not result in any cumulatively considerable contribution to a cumulative impact on historic resources that may result from concurrent construction work on these structures. Although the water wheel project is expected to require a substantial amount of soil and some debris removal during excavation work, haul routes would be coordinated through and approved by the Department of Public Works to avoid unduly burdening roadways around the project area. The project would comply with the Bureau of Engineering's Master Specifications, which contain provisions related to project interface and coordination with other projects. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact.</p> |                                |                                       |                          |                                     |
| <p>c) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?</p>  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Comment: The proposed project would primarily fulfill long-term goals by enhancing pedestrian connections between the surrounding artistic community, the State Park, and the LA River and by providing a useful water source (non-potable irrigation) for future State Park and other recreational and park uses. The project would not result in any significant impacts on the environment and in its operation would involve minimal electric power and non-hazardous treatment of water diverted from a non-potable source. Therefore, no impacts on long-term environmental goals would occur.</p>  |                                |                                       |                          |                                     |
| <p>d) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?</p>   | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p>Comment: As noted in the preceding checklist, potential impacts related to hazards, hydrology and water quality, cultural resources, traffic, noise, and air quality would be considered less than significant. Therefore, the proposed project is not expected to result in substantial adverse effects on human beings and would have no impact.</p>  |                                |                                       |                          |                                     |

[this page left blank intentionally]