East Bay Municipal Utility District LELAND RESERVOIR REPLACEMENT PROJECT Initial Study

September 2016

East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11th Street Oakland, CA 94607

Prepared with Assistance from:



RMC Water and Environment 2175 N. California Blvd., Suite 315 Walnut Creek, CA 94596

ENVIRONMENTAL CHECKLIST FORM (Revised September 2016)

1.	Project Title:	Leland Reservoir Replacement Project
2.	Lead Agency Name and Address:	East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11th Street Oakland, CA 94607
3.	Contact Person:	Oscar Herrera, Project Manager East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11 th Street Oakland, CA 94607 (510) 287-1005 lelandreservoir@ebmud.com
4.	Project Location:	In Lafayette, opposite 1050 Leland Drive. Pipeline work in Windsor Drive between Old Tunnel Road and Condit Road, Condit Road between Windsor Drive and Leland Drive, and Leland Drive between Condit Road and Meek Place.
5.	Project Sponsor's Name and Address:	East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11 th Street Oakland, CA 94607
6.	General Plan Designation:	Civic Use
7.	Zoning:	R-10 (Single Family Residential District-10)

8. Description of Project (*Describe the whole action involved, including, but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary*)

The project includes replacement of the existing 18-million-gallon (MG) open-cut Leland Reservoir with two new 8-MG prestressed concrete tanks within the existing reservoir basin. The project also includes replacing approximately 1,700 linear feet of existing 36-inch transmission pipeline that currently runs beneath the reservoir with approximately 2,700 linear feet of pipeline to be constructed in Windsor Drive, Condit Road and a short section of Leland Drive between Condit Road and Meek Place, and approximately 950 feet of pipeline within the Leland Reservoir site. The current access road from Leland Reservoir up to and around the reservoir perimeter would be retained and improved. Figure 1 shows the project location and Figure 2 shows the reservoir structure, removing vegetation and breaching the embankment to provide access into the existing reservoir basin, construction. Construction would require stockpiling of soil from the embankment on the eastern portion of the site adjacent to Leland Drive.

9. Surrounding land uses and setting (briefly describe project's surroundings):

The Leland Reservoir site is surrounded to the east and west by single family residential homes. A church is adjacent to the southern property boundary of the reservoir site. The land between the northern property boundary and Old Tunnel Road is vacant land, zoned for single family residential use. The proposed pipeline route is under streets in single-family residential neighborhoods, and also passes a private elementary school, and a community swim center.

10. Other public agencies whose approval is required (*e.g.*, *permits*, *financing approval*, *or participation agreement*):

Table 1 is a preliminary summary of the public agencies from which EBMUD may require approval and/or coordination is necessary in order to construct the proposed project. The EIR will confirm this list based upon input in response to the Notice of Preparation.

Agency/ Stakeholder	Type of Jurisdiction	Type of Approval and/or Coordination Necessary
City of Lafayette	Local	Encroachment permit for construction within city streets. Approval for use of storm drains for dewatering activities.
Central Contra Costa County Sanitary District	Local	Approval for use of sewer line for dewatering activities.
Division of Safety of Dams	State	Review and approval of plans for modifying Leland Reservoir Dam

Table 1

Other Required Approvals and/or Coordination Necessary for the Proposed Project



Figure 1: Project Location





ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below could potentially be affected by this project, but would be mitigated to a less than significant level as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources	\boxtimes	Air Quality
\square	Biological Resources	\square	Cultural Resources		Energy Use
	Geology/Soils	\boxtimes	Greenhouse Gas Emissions	\boxtimes	Hazards/Hazardous Materials
	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
\square	Noise		Population/Housing		Public Services
	Recreation		Transportation/Traffic		Utilities/Service Systems
	Mandatory Findings of Significance				

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- 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 by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses 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 like the one involved (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 will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
- 4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9. The analysis of each issue should identify:
 - a) The significance criteria or threshold used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL IMPACT CHECKLIST

I	Aesthetics Vould the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?				\boxtimes
b)	Substantially damage scenic resources, including but not limited to, trees, rock outcropping, and historic buildings within a state scenic highway?				\boxtimes
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?				
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

DISCUSSION

a. No Impact. The project site is not within a designated scenic vista.

b. No Impact. State Route 24 from the Caldecott Tunnel to Interstate 680 is a designated scenic highway (Caltrans, 2016). The project site is located about 650 feet south of this scenic highway, but is not visible from State Route 24 because it is screened from the highway by the intervening topography.

c. Potentially Significant Impact. The Leland Reservoir property is visible to homes located across from the site on Leland Drive (1024-1074 Leland Drive) and to homes on Sunset Loop (1381 through 1451 Sunset Loop) and at the end of Ruth Drive (20 and 24 Ruth Drive), which are located above Leland Drive. The homes along Leland Drive currently view the access road to the reservoir, grassy hillsides and trees. Homes adjacent to the western boundary of the Leland Reservoir property (3143 Old Tunnel Road, 3134 and 3135 Maryola Court, 3131 and 3132 Mars Court) have views of the tree-covered reservoir embankment along the back of the property. Some of these homes may also have views of the existing security fencing surrounding the existing reservoir. The entire site perimeter is surrounded by barbed wire fencing.

The project would change the visual character of the site by removing trees along the western and southwestern areas of the property for the construction of a new access road and tanks, and by creating temporary excavated soil storage areas. The number of trees to be removed for construction would be determined during preparation of the EIR. The existing access road would be rebuilt and may be lowered to enter the reservoir basin. The new concrete tank roofs would sit approximately six feet above the existing roofline. The new concrete tanks would be partially buried with the soil material excavated for the construction of the new tanks. The EIR will provide a detailed evaluation of potential impacts to the existing visual character of the site. Mitigation measures will be identified, as appropriate, to minimize any potentially significant impacts.

The proposed 36-inch transmission pipeline installation in Windsor Drive, Condit Road, Leland Drive, and on the Leland Reservoir site would be installed underground and would not be visible, and, therefore would have no permanent impact on the visual character of the site or surrounding area. Any deterioration of existing public facilities resulting from construction (e.g., streets) would be restored by EBMUD to pre-construction condition upon completion of construction.

d. Less than Significant Impact. Any external lighting added to the project would be directed towards the reservoir valve pit and electrical equipment cabinet and would not be visible outside the reservoir site. The lighting would be used on a short-term, as-needed basis for emergency operation and/or repair of the valve pit or electrical equipment.

II. Re: Wo	Agriculture and Forestry sources uld the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non- agricultural use?				
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				\boxtimes
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]) or timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section51140 (g))				\boxtimes
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				\boxtimes
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non- agricultural use or conversion of forest land to non-forest use?				\boxtimes

DISCUSSION

a. No Impact. The project site is not designated as prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The California Department of Conservation designates the site as "Urban and Built-Up Land" (California Department of Conservation, 2014). The project site is located within an urban area surrounded by residential uses east and west of the project site, a church and elementary school to the south, and State Route 24 to the north.

b. No Impact. The project site is not currently zoned for agricultural use (City of Lafayette General Plan Land Use Map, 2002) nor is it under a Williamson Act contract for agricultural preservation.

c-d. No Impact. The project site is not designated as forest land or timberland.

e. No Impact. The project site would not involve changes that would result in loss of Farmland to non-agricultural use. The project site is located within an urban area surrounded by residential, religious, and school uses.

III. V e n d f f	Air Quality Where available, the significance criteria stablished by the applicable air quality nanagement or air pollution control istrict may be relied upon to make the ollowing determinations. Would the roject:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	\boxtimes			
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	\boxtimes			
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				
d)	Expose sensitive receptors to substantial pollutant concentrations?	\boxtimes			
e)	Create objectionable odors affecting a substantial number of people?	\square			

DISCUSSION

a-d. Potentially Significant Impact. The proposed project would require the use of construction vehicles and machinery, which could result in temporary, but potentially significant emission of criteria pollutants. The EIR will include a detailed analysis, including air quality modeling of construction emissions, to assess the potential impacts. Mitigation measures will be identified, as appropriate, and could include implementing the Bay Area Air Quality Management District's (BAAQMD) recommended Basic Construction Mitigation Measures, which includes Best Management Practices (BMPs), such as minimizing idling time and ensuring proper maintenance of construction equipment. Operation of the project would require limited maintenance. Air quality impacts from maintenance vehicles are expected to be minimal.

e. Potentially Significant Impact. The proposed project would generate odors from diesel exhaust emission during project construction. Impacts would be temporary but could be potentially significant. The EIR will address odor impacts during construction. Mitigation measures will be identified, as appropriate, and could include reducing idling time of construction equipment that produces diesel exhaust emissions and requiring that all equipment comply with the California Air Resources Board's (CARB's) Airborne Diesel Air Toxic Measures (ATCMs). Operation of the project would have no significant odor impacts.

IV. Biological Resources Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
 a) Have a substantial adverse impact, 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 Dept. of Fish & Game or U.S. Fish & Wildlife Service? 				
b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Dept. of Fish & Game or U.S. Fish & Wildlife Service?				\boxtimes
c) Have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
 d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? 				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				\boxtimes

The Biological Resource discussion is based upon a report titled *Leland Reservoir Replacement Project Biological Resources Assessment* (Biological Resources Assessment) prepared by EBMUD's Fisheries and Wildlife staff (updated May 2016).

a. No Impact. The project site does not contain any habitat suitable to support sensitive and special status plant, as identified in the Biological Resources Assessment (EBMUD, 2010). The project site is landscaped and regularly maintained. The habitats present within the project site are characteristic of disturbed and urban habitats and are dominated by planted landscape and other non-native species. No impacts to sensitive and special status plant species are anticipated.

b. No Impact. No riparian habitats or other sensitive natural community occur on or directly adjacent to the proposed project site. Therefore, the project would not result in any impacts to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife (CDFW) or US Fish and Wildlife Service (USFWS).

c. No Impact. No federally-protected wetlands occur within the project site. Therefore, the project would not result in any impacts on federally-protected wetlands as defined by Section 404 of the Federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

d. Potentially Significant Impact. The project site does not function as an important regional wildlife corridor because the site and adjacent areas have been developed, paved, or landscaped. The site is surrounded by residential development east and west sides, State Highway 24 on the north side, and a church and elementary school south of the project site. There would be no impact to wildlife movement corridors. However, nesting birds and roosting bats could use trees on the reservoir site.

Nesting and migratory birds that are protected under the Migratory Bird Treaty Act or the California Fish and Game Code Sections 3503 and 3503.5 have potential to nest within the project area. These species may use trees, shrubs, man-made structures or the ground for nesting habitat. Disruption of nesting special status avian species could occur as a result of increased human activity (e.g., due to the use of heavy equipment and human traffic) during the breeding season (approximately February through August). Construction activities could disturb nesting avian species and lead to nest abandonment or poor reproductive success.

Roosting habitats for special status bat species may be present in the project site. These species typically use buildings, trees, bridges, and rock crevices for roost habitat. Construction activities may result in the removal or disturbance of hibernation or maternal roost sites due to tree removal, ground disturbance, noise or human intrusion. This is a potentially significant impact as it may result in direct mortality and reduction in reproductive success.

The EIR will address impacts to special status bat species and migratory birds and include mitigation measures such as pre-construction surveys, establishment of work buffers for active nests, and on-site monitoring, if appropriate.

e. Potentially Significant Impact. The proposed project would require the trimming or removal of trees. The City of Lafayette has established ordinances for tree protection. EBMUD is not subject to permitting under these ordinances per California Code Section 53091; therefore, impacts associated with conflicting with local policies would be less than significant. However, where tree removal is required, EBMUD would replace established trees as necessary and would also implement standard practices consistent with tree protection ordinances for tree pruning and care. The EIR will evaluate the impact of tree removal and will recommend mitigation measures to address the loss of trees on the site.

f. No Impact. There are no adopted Habitat Conservation Plans (HCP), Natural Community Conservation Plans (NCCP), or other local, regional, or state habitat conservation plans within the proposed project area. There would be no impacts associated with conflicts with HCPs or NCCPs.

V.	Cultural Resources Vould the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?	\boxtimes			
b)	Cause a substantial adverse change in the significance of a unique archaeological resource as defined in section 15064.5?	\boxtimes			
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	\boxtimes			
d)	Disturb any human remains, including those interred outside of formal cemeteries?	\boxtimes			

DISCUSSION

a-c. Potentially Significant. Although the project site and pipeline routes are in substantially disturbed areas given the built environment, construction has the potential to disturb or damage buried and previously undiscovered archaeological, paleontological or historic resources in the project area. The EIR will provide a detailed evaluation of potential cultural resource impacts. An archeological and a historical study will be prepared to identify areas of moderate or high potential for buried cultural, historic, or paleontological resources. Mitigation measures would be implemented to avoid or minimize effects to any archaeological, paleontological or historic resources.

d. Potentially Significant Impact. The proposed project would involve trenching and excavation on the roadways and on the existing reservoir site. There is potential during trenching and excavation to uncover human remains. Impacts to human remains would be considered a potentially significant impact. The potential for impacts to human remains will be identified in the EIR. Mitigation measures will be implemented which would require EBMUD to implement state regulations, including Public Resources Code (PRC) Section 5097.98 and Health and Safety Code Section 7050.5.

VI. Energy Use Environmental impacts may include:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Measures Incorporated	Less-than- Significant Impact	No Impact
a) The project's energy requirements by amount and fuel type for each stage of the project including construction, operation, and maintenance			\boxtimes	
b) The effects of the project on local and regional energy supplies and on requirements for additional capacity				\boxtimes
c) The effects of the project on peak and base period demands for electricity and other forms of energy				
d) The degree to which the project complies with existing energy standards				\boxtimes
e) The effects of the project on energy resources				\square
f) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives				

a-f. Less than Significant Impact. Construction for the proposed project would require the use of fuels, including gas, diesel, and motor oil for construction activities. In addition, indirect energy use would be required for the production of construction materials, including extraction of raw materials and manufacturing. Operation of the proposed project could also potentially require the use of energy for periodic flushing, anode replacement, leak detection, repair, and maintenance, but this is not expected to be materially different from the energy requirements for maintenance of the existing facility. Construction impacts would be temporary and are expected to be less than significant with implementation of standard practices, such as reducing idling time for construction equipment and vehicles.

VII. Geology and Soils Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	\boxtimes			
	 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? Refer to Division of Mines and Geology Special Publication 42. 				
	ii) Strong seismic ground shaking?	\boxtimes			
	iii) Seismic-related ground failure, including liquefaction?	\boxtimes			
	iv) Landslides?	\square			
b)	Result in substantial soil erosion or the loss of topsoil?	\boxtimes			
c)	Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	\boxtimes			
d)	Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code 1994, creating substantial risks to life or property?	\boxtimes			
e)	Have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				\boxtimes

Geology, geotechnical and seismicity assessments were conducted to evaluate potential environmental impacts for the proposed project based on review of available geological maps, reports and other related literature. From geotechnical and geological viewpoints, the project site is suitable for construction of the proposed project.

a. (i) No Impact. The project area is not within mapped fault zones (EBMUD, 2011).

a. (**ii-iv**) **and b-d. Potentially Significant Impact.** The proposed project may be susceptible to unstable soil or geologic conditions including liquefaction, ground shaking and erosion. The proposed pipeline route is in areas considered to have very low to moderate liquefaction potential, and the reservoir site is entirely within an area of very low liquefaction potential (City of Lafayette, 1976). The project site is not in an area of known landslides or ground

susceptible to sliding (City of Lafayette, 1976), but there are some slopes on the project site that could be susceptible to sliding. Although the proposed project would be designed and constructed to meet the latest building code requirements to resist strong ground motions, the EIR will provide a detailed evaluation of potential geology and soil impacts and mitigation measures to mitigate significant impacts.

e. No Impact. Wastewater generation or disposal is not a part of the proposed project, therefor land would not be used for treatment or disposal of wastewater. During construction, temporary self-contained toilets and hand washing facilities would be located on site. Any wastewater generated by these facilities would be hauled off site for treatment and disposal.

VIII. Greenhouse Gas Emissions Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	\boxtimes			
 b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? 	\boxtimes			

DISCUSSION

a-b. Potentially Significant Impact. Project construction would result in temporary emissions of greenhouse gases. The EIR will provide a detailed analysis of greenhouse gas emissions from construction. The air quality modeling prepared for the EIR will include an analysis of the potential increases in greenhouse gas emissions. Mitigation measures will be identified, as appropriate, and could include BMPs recommended by the BAAQMD and reduction of idling for vehicles and machinery. The EIR will identify the significance of greenhouse gas impacts and the mitigation measures that will be implemented to mitigate impacts.

IX.	Hazards and Hazardous Materials	Potentially Significant	Less Than Significant With Mitigation	Less Than Significant	No Import
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?				
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would it create a significant hazard to the public or the environment?	\boxtimes			
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?				
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?				\boxtimes
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				
h)	Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

Leland Reservoir consists almost entirely of concrete slabs and beams, reinforced with steel rebar. The reservoir lining is a 4-inch concrete slab overlying a 3/16-inch impervious membrane, 4-inch asphalt plant mix base, and a 2.5-inch gravel blanket. The roof consists entirely of precast concrete roof panels supported by a precast concrete framing system of beams, girders, and columns.

The Hazards and Hazardous Materials discussion is based on past investigations conducted for EBMUD facilities. In 1994, lead was detected at high concentrations in a Leland Reservoir roof caulking material sample and in a soil sample (PES Environmental, 1994). Because of elevated lead concentration, additional sampling in 1996 was performed. The 1996 testing concluded there was no significant potential health or ecological risks and no remedial action or further investigation was required (PES Environmental, 1996). Samples collected at Leland Reservoir as part of a reservoir materials assessment of all EBMUD reservoirs (CH2MHill, 1995) did not exceed concentrations of contaminants that would require special Occupational Safety and Health Administration (OSHA) health and safety requirements or hazardous material disposal.

a-d. Potentially Significant Impact. Construction of the proposed project would require the use of typical construction-related hazardous materials (e.g., fuel, lubricants and solvents) that must be properly handled and disposed of to minimize effects on the environment. Although there are no mapped areas showing historical contamination in the California Department of Toxic Substance Control's EnviroStor Data Management System (accessed June 2016), soils in the project area may contain hazardous materials depending on historical land uses. Because the proposed project would include excavation and trenching, there is the potential for the release of contaminated soil and/or groundwater, if encountered. Although samples collected at Leland Reservoir as part of a reservoir materials assessment of all EBMUD reservoirs (CH2MHill, 1995) did not exceed concentrations of contaminants that would require special OSHA health and safety requirements or hazardous material disposal, sediment samples would need to be collected at Leland Reservoir and tested prior to disposal. EBMUD would comply with federal, state, and local laws regarding testing, management, and disposal of hazardous materials. Rupture of a subsurface gas pipeline, if present, during construction trenching could also generate a significant hazard. The EIR will provide a detailed evaluation of the potential hazards based on previous data available for hazardous material sites and contamination in soils. Mitigation measures will be identified such as implementation of a Safety Environmental Awareness Program; preparation and implementation of a Spill Prevention, Control, and Countermeasure Plan; implementation of Best Management Practices; and potholing to identify subsurface utilities.

e-f. No Impact. The closest airport is Buchanan Field Airport, located in Concord, approximately 8 miles from the project site. The proposed project would not use any aeronautical equipment and would therefore not interfere with the airspace for any airport. None of the activities for the proposed project would create any significant hazards for people residing or working in or near an airport. There would be no impact associated with creating hazards near a public or private airport.

g. Potentially Significant Impact. Construction of the pipelines would require temporary lane and roadway closures during laydown of the pipelines and trenching. Although there are alternative vehicle routes in the project vicinity, impacts to emergency access could be potentially significant. The EIR will provide a detailed evaluation of potential impacts and will identify measures to mitigate significant impacts such as coordination with local emergency providers, and identification of alternative routes where appropriate.

h. No Impact. The proposed project is located completely in an urban/suburban area and would not include work in wildlands. The proposed project would not expose people or structures to a potential wildfire. There would be no impact to the public from wildfires.

X.	Hydrology and Water Quality Vould the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?			\boxtimes	
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 (i.e., 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?				
c)	Substantially alter the existing drainage pattern of the site area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?				
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 which would result in flooding on-site or off-site?				
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				
f)	Otherwise substantially degrade water quality?				\boxtimes
g)	Place housing within a 100-year flood plain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h)	Place within a 100-year flood plain structures which would impede or redirect flood flows?				\square
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?				
j)	Inundation by seiche, tsunami, or mudflow?				\square

a. Less than Significant Impact. EBMUD water distribution system/facilities are designed, constructed, operated and maintained to conform to state and federal requirements for water treatment and discharge, thus no impacts to water treatment and discharge are anticipated.

b. Less than Significant Impact. The project would not deplete groundwater supplies or recharge, because there would be no groundwater extraction associated with the project. The project would not reduce groundwater recharge because the existing impermeable surface would be restored thus maintaining the status quo commensurate with infiltration (from precipitation), groundwater and recharge. No drinking water wells are located in the vicinity of the project site and thus no impacts to groundwater are anticipated.

c-e. Less than Significant Impact. Existing constructed and natural drainage features at the project site would be re-used and improved. Drainage patterns may be temporarily disrupted during construction. EBMUD Standard Construction Specifications require that the contractor develop and implement an erosion and sedimentation control plan for work performed in unpaved areas.

The existing roadway drainage pattern and system would not be altered by the pipeline construction by this project, and thus the project would not increase storm-water run-off.

f-h. No Impact. The project site is not located within a 100-year flood plain (FEMA, 1996).

i. Less than Significant. Prior to construction activity on the Leland Reservoir site, the existing reservoir would be drained. The existing dam embankment would be removed following the dewatering of the reservoir. Therefore, the proposed project would not cause flooding due to the failure of a dam or levee because there would be no water impounded behind the dam prior to its removal. EBMUD maintains a Dispatch Center and field crew 24 hours a day, 7 days a week to respond to emergencies. The pipelines would be designed with isolation valves that can be closed to interrupt the flow of water to a ruptured pipe. The pipelines would be designed to withstand substantial stress and pressures, and the possibility of a rupture is considered remote. Due to the remote possibility of rupture and the level of protection inherent in the design of the pipeline, this impact is considered to be less than significant and will be described further in the EIR.

j. No Impact. The proposed project is not located in an area susceptible to seiches, tsunamis, or mudflows; therefore, there would be no impact.

XI.	Land Use and Planning Vould the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Physically divide an established community?				\square
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?				
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?				\square

a. No Impact. The proposed project would place pipelines underneath existing roadway and would replace an existing reservoir at a site already developed with a reservoir. There would be no impact to communities associated with the division of an established community.

b. Less than Significant Impact. Pursuant to California Government Code Section 53091(e), county and city zoning ordinances do not apply to the location or construction of facilities for the transmission of water. The EIR will, however, consider resource policies in the zoning ordinances and general plans for the City of Lafayette in corresponding EIR sections (e.g., Noise, Biological Resources). The reservoir site is designated as "Community Facilities/Civic Uses" in the City of Lafayette General Plan (City of Lafayette, 2002), and the use of the site would not change. The site is zoned R-10 (Single Family Residential District – 10) (City of Lafayette, 2013); publicly owned structures are allowed within this zoning district.

c. No Impact. There are no adopted HCPs, NCCPs, or other local, regional, or state habitat conservation plans within the proposed project area. There would be no impacts associated with conflicts with HCPs or NCCPs.

XII. Mineral Resources Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				
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?				

a-b. No Impact. The proposed project is located in an urban/ suburban environment. There are no mineral resources within the proposed project area. There would be no impact to mineral resources.

XI	I. Noise Vould the project result in :	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	\boxtimes			
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	\boxtimes			
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				\square
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	\boxtimes			
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?				
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?				\boxtimes

a, b and d. Potentially Significant Impact. Construction of the proposed project would require the use of machinery and equipment that would generate short-term noise and vibration. The EIR will include a detailed analysis of impacts. A technical noise study will be performed to identify existing noise levels and sensitive receptors and provide an assessment of future noise levels with construction, including the duration of impacts. Mitigation measures will be identified, if appropriate, and could include using noise blankets on machinery to reduce noise, minimizing idling time, notifying residents of upcoming construction work, and coordinating with nearby schools.

c. No Impact. The proposed project would include the installation of underground water pipelines and replacement of an existing open-cut reservoir with two concrete tanks, which would not generate a new source of ambient noise. There would be no impact associated with a permanent increase in ambient noise levels.

e-f. No Impact. The closest airport is Buchanan Field Airport, located in Concord, approximately 8 miles from the proposed project site. The proposed project would not expose people residing or working near the airport to excessive noise levels; therefore, there would be no impact associated with exposing people near a public or private airport to excessive noise levels.

XI	V. Population and Housing Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?				
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				\boxtimes
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				\boxtimes

a-c. No Impact. The proposed project would not create infrastructure that would induce unanticipated population growth. The proposed project entails replacement of an existing 18-MG reservoir with two 8-MG tanks, and would thus not increase capacity to store water. The project would be constructed to meet water supply requirements for existing and projected future customer demands and to ensure long-term water supply to the Cities of Lafayette, Walnut Creek, and Pleasant Hill. There would, therefore, be no impacts to population and housing associated with inducing population growth from operation of the proposed project. In addition, none of the activities of the proposed project would displace housing or people. There would be no population and housing impacts associated with the proposed project.

XV. Public Services Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
 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?				\boxtimes
ii) Police protection?				\square
iii) Schools?				\square
iv) Parks?				\square
v) Other public facilities?				\boxtimes

a. No Impact. The proposed project replaces an existing reservoir and water transmission pipeline. The project would not generate a need for any new public facilities (schools, fire or police protection, parks, or other public facilities) because it does not induce population and employment growth. Workers at the project site are likely to commute from the existing Bay Area labor supply. Any deterioration of existing public facilities resulting from construction (e.g., streets) would be restored by EBMUD to pre-construction condition upon completion of construction.

XVI. Recreation Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
 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? 				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				

DISCUSSION

a. No Impact. The project would not generate or attract additional population, as would be associated with residential, commercial or industrial uses; therefore, it would not affect demand for recreational facilities. While the project would not increase use of recreational facilities, there could be short-term effects on the Sun Valley Swimming Pool, an existing recreational facility located on Leland Drive across the street from the reservoir site. Potential for construction to affect traffic and parking on Leland Drive, which provides access to the swimming pool, will be addressed in the EIR in the Traffic and Transportation section.

b. No Impact. The proposed project consists exclusively of water distribution system facilities and does not require the construction or expansion of recreational facilities.

XV	II. Transportation / Traffic Vould the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				
b)	Conflict with an applicable congestion management program, including but not limited to level of service demands and travel demand measures, or other standards established by the county congestion management agency for designated roads an or highways?				
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?				\boxtimes
d)	Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	\square			
e)	Result in inadequate emergency access?	\square			
f)	Conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				

a-b. Potentially Significant Impact. The construction of the proposed project would result in temporary lane and road closures. In addition, the proposed project would generate vehicle trips during project construction, temporarily contributing to increased traffic on local roadways. Truck trips would be associated with hauling materials, construction debris and equipment to and/or from the site. Construction employees would also contribute to vehicle trips. The EIR will include a detailed analysis of traffic impacts. A traffic study will be prepared that will identify traffic impacts from construction, including road and lane closures and traffic impacts. Detour routes will be identified. Mitigation measures will be identified to minimize traffic impacts, as feasible.

c. No Impact. The proposed project would not include any aeronautical equipment and would not include any activities that would interfere with the airspace above the site. There would be no impact to the public associated with a safety risk from changes to air traffic patterns.

d. Potentially Significant Impact. The proposed project would require the use of heavy machinery, equipment, and materials in public roadways, which could pose a hazard to the public using these roadways. The EIR will provide a detailed analysis of hazards to traffic and the public and will identify mitigation measures to reduce those impacts, as appropriate.

e. Potentially Significant Impact. Construction of pipelines would require temporary lane and roadway closures during laydown of the pipelines and trenching. These land and roadway closures may impede emergency access, which would be considered a potentially significant impact. Impacts to emergency access would be potentially significant. The EIR will provide a detailed evaluation of potential impacts and will identify measures to mitigate significant impacts such as coordination with local emergency providers, and identification of alternative routes.

f. Potentially Significant Impact. Temporary lane and road closures could potentially affect bike lanes and pedestrian access, and haul truck traffic could increase traffic on streets served by public transit services. The EIR will include an evaluation of potential impacts to bike lanes, pedestrian access, and public transit services and will include mitigation measures to reduce impacts, as appropriate.

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xv	III. Utilities and Service Systems Vould the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			\boxtimes	
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				
e)	Result in a determination by the wastewater treatment provider which 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?				
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			\boxtimes	
g)	Comply with federal, state, and local statutes and regulations related to solid waste?			\boxtimes	

a-b and d-e. No Impact. The proposed project would not include or require new expanded water or wastewater treatment facilities. In addition, the proposed project would not require additional water supplies; rather, the proposed project would ensure continuation of existing water supplies by replacing existing aging infrastructure, improving reliability and providing redundancy, as needed. There would be no impact to water or wastewater treatment facilities.

c. Less Than Significant. The project would include the design of on-site drainage facilities that would connect to the City of Lafayette's existing storm drainage system. Because impervious surface area would not increase, the volume of storm water would not increase, and thus the existing system would not need to be expanded.

f-g. Less than Significant Impact. The proposed project would generate construction debris from demolition of the existing reservoir, trenching and excavation of in-place soils. Construction debris would only be generated during constriction and not during operation and the impact would therefore be temporary. Some of this soil may be contaminated requiring

special disposal. Impacts are anticipated to be less than significant if all applicable regulations are followed. The EIR will identify the approximate amount of debris that would be generated by the proposed project, will identify how the waste would be characterized and will identify the landfills that would serve the proposed project.

XIX. Mandatory Findings of Significance Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment substantially reduce the habitat of a fis or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate plant or animal community, reduce the number or restrict the range of a rare o endangered plant or animal or eliminate important examples of the major perio of California history or prehistory?	a 🖂			
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)?	n e			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, eithe directly or indirectly?				

DISCUSSION

- a. **Potentially Significant Impact.** The proposed project is located in an urban/suburban environment; therefore, it is unlikely that the proposed project would substantially degrade the quality of the environment or substantially reduce habitat for special-status species. The proposed project would include trenching and ground disturbance. Construction of the proposed project, therefore, has the potential to disturb or damage previously undiscovered buried archaeological, paleontological and historic resources if they are encountered during construction. The EIR will provide a detailed evaluation of potential cultural and paleontological resource impacts and mitigation measures to mitigate significant impacts.
- b. **Potentially Significant Impact.** At this time, no other projects in the vicinity are anticipated to be underway during construction of the proposed project. However, the City of Lafayette will be contacted during preparation of the EIR to help identify other planned projects in the vicinity of the project. If any projects are identified, potential for cumulative traffic, noise, and air quality impacts could be significant. The EIR will include a

description of projects that may overlap with the proposed project and will include an assessment of cumulative impacts. Mitigation measures will be identified, as appropriate.

c. **Potentially Significant Impact.** Construction of the proposed project would result in environmental impacts that have the potential to contribute to adverse effects on human beings such as from noise generation, generation of air quality impacts, and other safety hazards. The EIR will provide a detailed evaluation of potential impacts and mitigation measures to mitigate significant impacts.

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