

**Initial Study/
Mitigated Negative Declaration
for the
Chris Basin Annual Routine Maintenance and
Bacteria Reduction Pilot Project**

Lead Agency:

San Bernardino County
Flood Control District
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A. Project Description

The San Bernardino County Flood Control District (District) owns, operates, and maintains Chris Basin for the purpose of conveying flood waters; the District is required to maintain the basin in compliance with current mandated operating procedures and requirements. Chris Basin is an engineered earthen flow-through detention basin located within the Cucamonga Creek Watershed, receives flows from Lower Deer Creek Channel, and discharges into Cucamonga Channel. In compliance with its operation and maintenance requirements, the District proposes to implement the following activities (Project) within Chris Basin: National Pollutant Discharge Elimination System (NPDES) Bacteria Reduction Pilot Project, Vector Management, and Annual Routine Maintenance.

Chris Basin is located in the City of Ontario within San Bernardino County (Figure 1).

A.1 Background and Purpose and Need

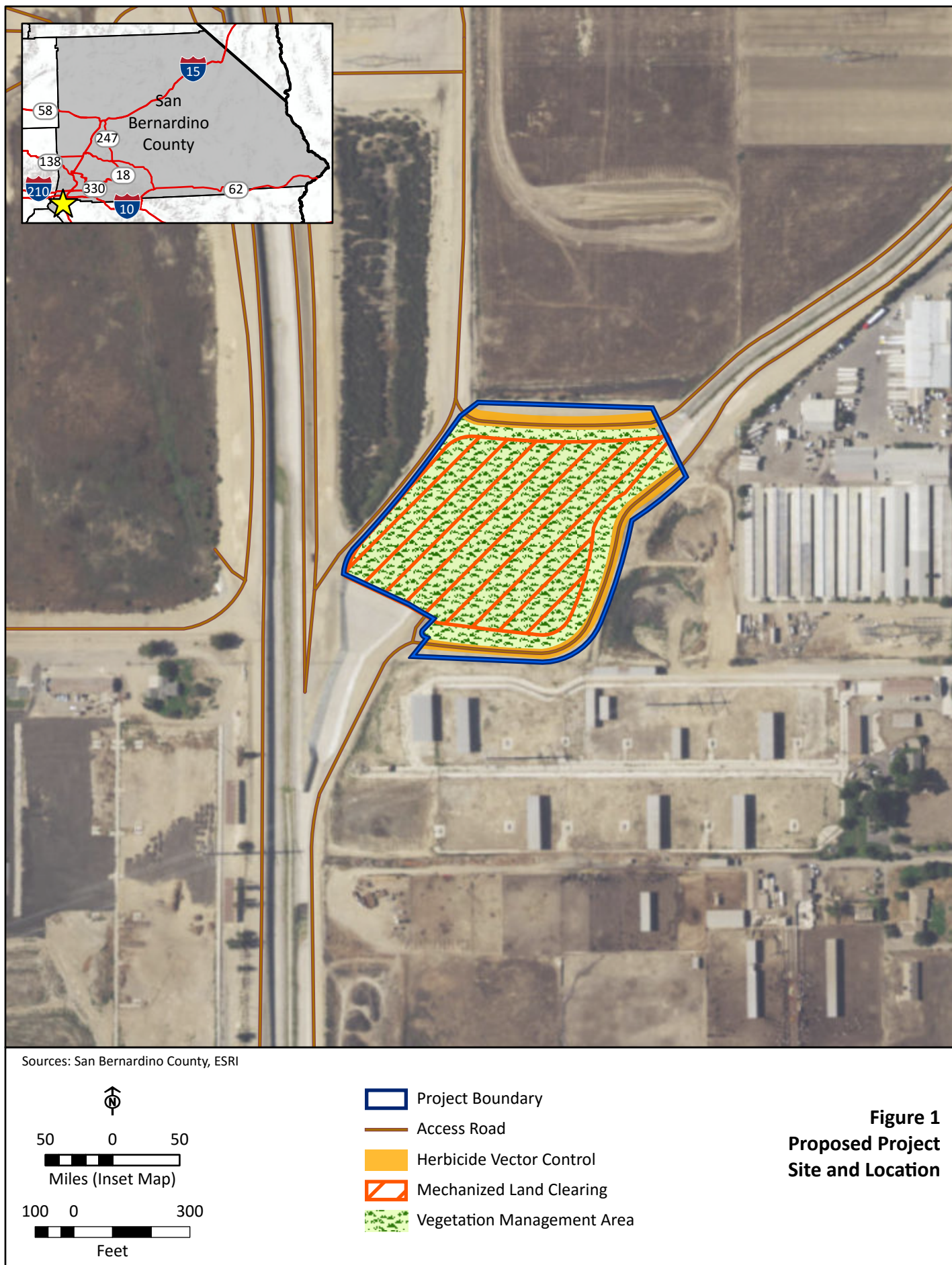
Due to the District's responsibility of maintaining the basin for flood protection purposes, the District is proposing to perform annual routine maintenance and inspections, which include, but are not limited to, vector and vegetation control, in order to meet the facility's flood control needs. As proposed, the maintenance activities would also support compliance with TMDL requirements in the Santa Ana MS4 Permit, Order No. R8-2010-0036 (NPDES No. CAS618036) issued by the Santa Ana Regional Water Quality Control Board.

A.2 Project Site, Location, and Vicinity

Chris Basin is located in the City of Ontario within San Bernardino County. Specifically the basin is located south of Chino Avenue, west of Archibald Avenue, and north of Ontario Ranch Road within Section 10, Township 2 South, Range 7 West of the U.S.G.S. Guasti topographical quadrangle.

Chris Basin is located within an industrial and agricultural area of the City of Ontario. Existing surrounding land uses to the north, south, and east are industrial or agricultural in nature.

A. PROJECT DESCRIPTION



A.3 Maintenance Project

Chris Basin is an engineered earthen flow-through detention basin located within the Cucamonga Creek Watershed, receives flows from Lower Deer Creek Channel and discharges into Cucamonga Channel. In compliance with its operation and maintenance requirements, the District proposes to implement the following activities (Project) within Chris Basin: NPDES Bacteria Reduction Pilot Project, Vector Management, and Annual Routine Maintenance.

The District owns, operates, and maintains Chris Basin; the District is required to maintain the basin in compliance with current mandated operating procedures and requirements for flood protection purposes.

Due to the District's responsibility of maintaining the basin for flood protection purposes, the District proposes to perform annual routine maintenance and inspections, which include, but are not limited to, both vector and vegetation control, in order to meet the facility's flood control needs. None of the Project activities are expected to result in ground disturbance beyond the engineered conditions. All of the Project activities would be contained within the limit of the District's flood control right-of-way (ROW) for maintenance and operations of the basin.

NPDES Bacteria Reduction Pilot Project

The Cucamonga Creek Watershed is within the Comprehensive Bacteria Reduction Plan (CBRP) area implemented by the District in compliance with the Santa Ana RWQCB Order No. R8-2010-0036, Section V.D.1. The CBRP is a long term plan designed to achieve compliance with dry weather conditions (April 1 – October 31) waste-load allocations for bacterial indicators established by the Middle Santa Ana River (MSAR) Bacterial Indicator Total Maximum Daily Load (TMDL). As part of the CBRP, the District implements an inspection program that includes the measurement of flow, bacterial indicators, and human sources of fecal bacteria indicators. The purpose of the monitoring activities is to identify point discharges within the MS4 that may be contributing a disproportionate amount of bacterial indicators. Overall, the inspection program provides the information necessary to implement an adaptive watershed management approach to mitigate urban bacterial indicator sources.

As a result of the inspection program, the District recorded high bacteria concentrations within Chris Basin and identified the facility as a potential regional structural BMP for bacterial indicators removal. According to a 2016 Cucamonga Creek Study, dry weather flow exiting Chris Basin averaged 1 cfs with a geometric mean is 793 MPN *E. coli*/100 mL.

Based on this information, the District proposes to implement a bacteria reduction pilot project to address high bacteria concentrations within the basin. The pilot project will redirect low flows from the center of the basin to along the southeast levee toe, increasing flow duration in the basin and promoting bacteria removal. The new center-flow/low-flow channel will still be directed towards the outlet gate that leads to Cucamonga Channel. The outlet gate will be utilized at $\frac{3}{4}$ closure to further promote additional bacteria removal by allowing low-flows to pond around the gate. The gate will be opened approximately $\frac{1}{4}$ of the way to allow the flows to slowly release into Cucamonga Channel. If a vector issue arises due to ponded water, the outlet gate will be opened to allow flows to aerate and move downstream. The NPDES pilot project would be implemented concurrent with the District's routine maintenance activities for flood control purposes.

It is anticipated that the water quality benefits of the pilot project would include treatment of dry-weather flows for bacteria/pathogens. Further, reduction in other pollutants of concern is expected through infiltration, plant use and uptake, adsorption, and/or UV destruction.

The District would continue to implement the CBRP inspection program; data collected from the inspection program would be utilized to quantify the effectiveness/success of the pilot project.

Routine Maintenance

Maintenance activities within Chris Basin include, but are not limited to:

- Levee repairs (including toe of slope, slopes erosions, top of levees, etc.) repairs;
- Flowline maintenance (as needed);
- NPDES monitoring;
- Concrete structure repairs (as needed);
- Graffiti removal (as needed);
- Vector and rodent controls (as needed);
- Ingress/egress maintenance and repair;
- Mechanized land clearing and excavation (as needed);
- Mowing of basin bottom;
- Herbicide (as needed);
- Vegetation management (manual, mechanical, and/or chemical).

It is anticipated that maintenance and repair activities would occur on an as needed basis throughout the year, as many as four times annually, and would last no more than 25 days per maintenance occurrence. Equipment proposed for maintenance activities would include both hand tools and mechanical tools. The following equipment may be used during maintenance occurrences: dozer; dump truck; excavator; gradall; grader; loader; non-mechanized hand-held tools; service truck; skidsteer loader; speed loader; sprayer truck/equipment; tractor disk; tractor/boom mower; and water truck.

Please note: maintenance activities (i.e. grading to create the new flowline, mowing, herbicide application, etc.) performed in an effort to accomplish NPDES bacteria reduction goals within the basin are not subject to 401 jurisdiction and certification, as they are covered under the District's MS4 (R8-2010-0036) and an Aquatic Pesticides for Aquatic Weed Control in Waters of the US, General Permit No. CAG990005.

All appropriate Best Management Practices (BMPs) will be implemented during all maintenance activities that take place within Chris Basin.

Vector Management

Chris Basin is subject to vector management activities in accordance with the West Valley Mosquito and Vector Control Program. Vector management activities are implemented by West Valley Mosquito and Vector Control District (MVCD) per the procedures established in a Memorandum of Understanding between West Valley MVCD and the District effective through June 2021. Activities associated with the Mosquito and Vector Control Program include vector monitoring, sample collection, and lab analysis of specimen collected. Past vector sampling results at Chris Basin tested positive for vector-transmitted infectious diseases.

The Project proposes routine maintenance to allow the MVCD to continue with implementation of its vector management activities. Impacts related to vector management activities are not evaluated in this document and have already been subject to environmental review under the MVCD process.

Transportation

The primary access route to the basin is via Archibald Avenue south of Chino Avenue. All roads at maintenance access points are expected to operate normally during routine maintenance activities. Public access at Project entry/access locations will not require detours.

Water

If water is needed during routine maintenance activities, such as for dust control, the District would utilize the Inland Empire Utility Agency reclaimed water meters located on Archibald Avenue by Lower Deer Creek Channel and on Chino Avenue by Cucamonga Channel.

A.4 Required Permits and Approvals

Operation of the maintenance Project may require the discretionary actions and approvals listed below, per jurisdiction.

Federal

- United States Army Corps of Engineers (USACE)
 - Clean Water Act Section 404, Nationwide Permits 3 and 31

State

- CDFW
 - Streambed Alteration Agreement/California Fish and Game Code Section 1600
- Santa Ana Regional Water Quality Control Board (RWQCB)
 - Water Quality Certification/Clean Water Act Section 401 - (Please note: maintenance activities (i.e. grading to create the new flowline, mowing, herbicide application, etc.) performed in an effort to accomplish NPDES bacteria reduction goals within the basin are not subject to 401 jurisdiction and certification, as they are covered under the District's MS4 (R8-2010-0036) and an Aquatic Pesticides for Aquatic Weed Control in Waters of the US, General Permit No. CAG990005.

B. Environmental Determination

B.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” and requiring implementation of mitigation as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <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 type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials | <input 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 checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

B.2 Environmental 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 project proponent. 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” impact 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 EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Darren Meeka, Division Chief
Environmental Management Division
County of San Bernardino
Department of Public Works

Date

C. Evaluation of Environmental Impacts

C.1 Aesthetics

AESTHETICS				
Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. Land uses near the maintenance Project include undeveloped land directly north and south. Industrial development is located directly adjacent to Chris Basin to the east and to the west is the improved Cucamonga Channel. The only adjacent receptors with direct views of the site are industrial uses. The adjacent areas and roadways (Archibald Avenue) are not designated as scenic vista's, nor does the Project site contain a scenic vista. Therefore, there would not be any substantial or permanent adverse effects to any scenic vista; therefore, no impact would result from the maintenance Project.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

NO IMPACT. As discussed above in C.1 (a), the Project site does not contain, or is directly adjacent to, any scenic vistas. Further, the maintenance Project would not be visible from any roadway designated as a Scenic Highway by the California Department of Transportation (Caltrans, 2017). Project activities would include annual repairs and maintenance of the earthen basin, inverts, drainage structures; center flow maintenance, debris and trash removal, maintenance of existing access roads and ramps, vegetation management, and other related flood control maintenance activities. Chris Basin does not contain any trees; furthermore, the site does not contain any rock outcroppings or structures (historic or otherwise). Therefore, annual routine maintenance and the implementation of the NPDES Bacteria Reduction Pilot Project at Chris Basin would have no impact to designated scenic resources.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LESS THAN SIGNIFICANT IMPACT. The maintenance Project site currently is the existing Chris Basin, a designated flood control facility. As discussed above in C.1 (a), surrounding land uses with views of the site include undeveloped land and industrial uses. Project activities, as stated above, consist of annual flood control maintenance of an existing earthen basin, which include, but aren't limited to, debris and trash removal, maintenance of existing access roads and ramps, as well as vector and vegetation management. These activities are considered to have a positive effect on the visual appearance of the existing basin and would not substantially alter nor degrade the existing visual character of the area. As proposed the maintenance and repair activities would occur on an as needed basis throughout the year,

as many as four times annually, and would last no more than 25 days per maintenance occurrence. While workers and equipment would be visible to adjacent areas during these periods, these view-sheds are not considered sensitive and such views would be temporary. Therefore, any impacts associated to the visual character of the area would be temporary and less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

NO IMPACT. Annual routine maintenance activities within Chris Basin would not include activities, or components, that would include a new source of light to the basin or the surrounding area. All maintenance activities would occur during the County of San Bernardino Flood Control District's core hours of 7:00 a.m. and 4:30 p.m., and would not necessitate the need for temporary lighting. Furthermore, no new sources of permanent lighting within the basin are proposed as part of the ongoing annual routine maintenance activities. In the event of an emergency, emergency repair activities to the basin may require temporary lighting. If an emergency is declared, then the need for temporary lighting will be assessed on a case by case basis. Based on the analysis above the proposed annual routine maintenance activities would not introduce a new source of light or glare that would adversely affect day or nighttime views; therefore, no impacts would occur.

C.2 Agriculture and Forestry Resources

AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to 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. In determining whether impacts to 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 forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would 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), 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"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project 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?

NO IMPACT. According to the Important Farmland Data gathered by the California Department of Conservation (DOC) as part of the DOC's Farmland Mapping and Monitoring Program, the maintenance project site is designated Urban and Built-Up Land (DOC, 2016a). None of the proposed annual routine maintenance activities would occur on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. There is designated Farmland of Local Importance in the surrounding area; however, all of the proposed maintenance would be contained within the District's existing flood control ROW for maintenance and operations of the basin. Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. The proposed maintenance Project site is not located on designated Williamson Act land. According to San Bernardino County Williamson Act maps from FY 2015/2016, the Project site is classified as Urban and Built-Up Land (DOC, 2016b). As defined by the DOC, Urban and Built-Up Land

would not be enrolled in a Williamson Act contract (DOC, 2016b). Further, the Project site is designated by the City of Ontario as Open Space-Non Recreation and is included within the zoned Countryside Specific Plan; neither of which incorporates an agricultural land use designation or zoning (City of Ontario, 2010). The City of Ontario has zoned land for agriculture in the surrounding area; however, all of the proposed Project activities would be contained within the District's existing flood control ROW for maintenance and operations of the basin (City of Ontario, 2015). The proposed annual routine maintenance activities of the Project would include the Bacteria Reduction Pilot Project, vector management, and tri-annual operational and maintenance activities. Activities of the maintenance Project would not conflict with agricultural zoning or a Williamson Act contract.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timber-land (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

NO IMPACT. The maintenance Project site is not located on land that is zoned for forest land or timberland, and none of the proposed maintenance activities would affect the zoning for forest land or timberland. There would be no impact under this criterion.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. The maintenance Project site is not located on or adjacent to forest land, and none of the proposed maintenance activities would result in the loss or conversion of forest land. There would be no impact under this criterion.

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?

NO IMPACT. The maintenance Project site is designated by the City of Ontario as Open Space Non Recreation. None of the Project activities would be located in an area zoned for agriculture or forest land, or on designated Farmland. Further, maintenance activities would be contained within the District's flood control ROW, and would not affect the designation or use of lands outside of the Project site. Therefore, it is not anticipated that the maintenance Project would involve other changes that would result in conversions to non-agricultural or non-forest uses. There would be no impact under this criterion.

C.3 Air Quality

AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LESS THAN SIGNIFICANT IMPACT. For areas that do not attain the National Ambient Air Quality Standards (NAAQS), the Clean Air Act (CAA) requires the preparation of a State Implementation Plan (SIP), detailing how the State will attain the NAAQS within mandated timeframes. In response to this requirement, SCAQMD and the Southern California Association of Governments (SCAG) developed air quality management plans (AQMPs) in 2003, 2007, 2012, and 2016 (SCAQMD, 2003; 2007; 2013; 2017). The focus of the AQMPs was to demonstrate attainment of the NAAQS, while making progress toward attainment of State standards. The 2003 AQMP also included an nitrogen dioxide (NO₂) maintenance plan, and SCAQMD submitted the particulate matter (PM₁₀) maintenance plan to USEPA in 2010 that was approved by USEPA in 2013 (USEPA, 2013).

The maintenance Project would temporarily produce emissions of nonattainment pollutants primarily from off-road equipment and on-road vehicles. The approved 2012 AQMP, and State but not federally approved 2016 AQMP, propose emission reduction measures that are designed to bring the South Coast Air Basin (SCAB) into attainment of the NAAQS and California Ambient Air Quality Standards (CAAQS). The attainment strategies in this plan include mobile source control measures and clean fuel programs that are enforced at the federal and State levels on engine manufacturers and petroleum refiners and retailers.

There are no applicable emission reduction measures in these plans that are not already part of approved regulations, since the maintenance Project includes no major stationary emission sources. The maintenance Project would comply with these existing regulatory requirements. Additionally, the maintenance Project would not cause new growth. Therefore, the maintenance Project would not conflict with or obstruct the applicable air quality plans.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS THAN SIGNIFICANT IMPACT. The maintenance Project's air pollutant emissions are well below the magnitude needed to result in an air quality standard violation or contribute substantially to an existing

or projected air quality standard violation. Therefore, the maintenance Project would not significantly impact ambient air quality.

Also, please see the regional and localized air pollutant emissions analysis provided below under Impacts c. and d.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

LESS THAN SIGNIFICANT IMPACT. Pollutant emission calculations related to the maintenance Project's maintenance activities includes the emissions from the on-road vehicles and off-road equipment utilized, and the fugitive particulate matter emissions resulting from earthmoving activities and vehicle travel. Estimates for the worst-case daily off-road equipment use, materials import/export quantities, and personnel were provided by San Bernardino County. Project emissions were calculated using 2017 fleet average emissions factors derived from the current versions of the CARB EMFAC and OFFROAD emissions factor models, and fugitive dust emissions were calculated using AP-42 and CARB emissions factors. No mitigation was assumed for on-road vehicles and off-road equipment engine emissions. The fugitive dust emissions calculations included control measures that would be required to comply with SCAQMD Rule 403 (i.e. primarily wet dust suppression-watering). Detailed assumptions for the maintenance activity tasks, including off-road equipment and on-road vehicle use and task overlap assumptions, are provided in Appendix A. Table C.3-1 compares the maximum daily emissions of the Project with the SCAQMD regional significance thresholds.

Table C.3-1. Maximum Daily Emissions (lbs/day)						
	VOC	CO	NOx	SOx	PM10	PM2.5
On-road Vehicles	0.54	3.67	7.30	0.02	0.24	0.13
Off-road Equipment	2.38	17.85	33.13	0.03	1.35	1.24
Fugitive Dust	---	---	---	---	15.83	4.52
Total	2.92	21.53	40.43	0.06	17.42	5.90
SCAQMD Regional Significance Thresholds (lbs/day)	55	550	55	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Source: Appendix A; SCAQMD 2015

The maximum daily regional emissions have been determined to be below all SCAQMD regional emissions thresholds. This estimate includes the conservative assumptions of all maintenance activity tasks overlapping in time, conservative estimates for sediment removal requirements, and the use of 2017 fleet average emissions factors for off-road and on-road equipment. Therefore, the Project's regional air quality impacts are less than significant.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LESS THAN SIGNIFICANT IMPACT. SCAQMD Localized Significance Thresholds (LSTs) are used to determine if a project could exceed ambient air quality thresholds for nearby sensitive receptors. The LSTs were established by SCAQMD for each source receptor area (SRA) within their jurisdiction, and represent on-site emission levels that could cause ambient air quality standard exceedances or substantial contributions to existing exceedances at given distances from the site to nearby receptor locations. The

Project is in SRA 33 (Southwest San Bernardino Valley), and the nearest sensitive receptors are residential receptors located approximately 160 meters southwest of the basin.

The LSTs selected for the Project site, based on a 5-acre daily working area and 160 meters to the nearest receptor, were compared to the assumed reasonably foreseeable maximum localized on-site daily emissions in Table C.3-2. The nitrogen oxides (NOx) and carbon monoxide (CO) LSTs are higher than the regional thresholds, which were not exceeded, so those thresholds are not presented in the table.

Table C.3-2. Maximum Localized Daily Emissions (lbs/day)		
	PM10	PM2.5
On-road Vehicles	0.00	0.00
Off-road Equipment	1.35	1.24
Fugitive Dust	13.65	4.01
Total	15.00	5.25
SCAQMD Localized Significance Thresholds (lbs/day)	28	8
<i>Exceeds Thresholds?</i>	<i>No</i>	<i>No</i>

Source: Appendix A; SCAQMD, 2009

The maximum daily localized emissions have been determined to be below all SCAQMD LST emissions thresholds. Therefore, the Project's localized criteria pollutant air quality impacts are less than significant.

The maintenance Project's toxic air contaminant (TAC) emissions and associated health risk potential are primarily associated with the diesel particulate matter (DPM) emissions from off-road equipment used during the Project's maintenance activities. The emissions of acutely hazardous pollutants are negligible so the potential health risks are all related to long-term effects. The Project would have minimal annual onsite DPM emissions that would get smaller year by year as newer and cleaner off-road equipment becomes available. The combination of the low annual DPM emissions and the distance to receptors would not have the potential to create health risks that exceed SCAQMD significance thresholds. Therefore, the Project's TAC emissions and air quality impacts are less than significant.

e. Would the project create objectionable odors affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. Some objectionable odors may be temporarily created during the Project's maintenance activities, such as from diesel exhaust. Due to the distance of the nearest receptors from the Project site (refer to question C.3.d, above), these odors would not affect a substantial number of people and would only occur proximate to the work area. Therefore, less than significant impacts related to objectionable odors would occur.

C.4 Biological Resources

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 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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on 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 or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

Background and Methods

A Biological Resources Technical Report (BRTR) was prepared by Aspen Environmental Group (Aspen) for the Chris Basin Annual Routine Maintenance and Bacteria Reduction Pilot Project (Appendix B). The BRTR includes a literature review of special-status biological resources reported by the California Natural Diversity Database (CNDDDB) for the Corona North, Cucamonga Peak, Fontana, Guasti, Mount Baldy, Ontario, Prado Dam, Riverside West, and San Bernardino North United States Geological Survey (USGS) 7.5-minute topographic quad (CDFW, 2017). It also includes a review of the California Native Plant Society (CNPS) On-line Electronic Inventory (CNPS, 2017) and the Consortium of California Herbaria data (CCH, 2017). In addition, the BRTR describes field surveys conducted by Justin M. Wood (of Aspen) in April 2017 and all survey results. Finally, the BRTR identifies special-status biological resources either occurring or potentially occurring on the Project site.

A Jurisdictional Delineation (JD) was prepared by Aspen for the Project and is included as an appendix to this document (Appendix C). The field survey was conducted by Wood during the April 2017 site visit to determine the type and extent of jurisdictional waters and wetlands present. This section of the IS evaluates the Project's potential impacts to biological resources, including jurisdictional waters, and identifies feasible mitigation for any impacts that may be significant.

a. Would the project 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(CDFW) or U.S. Fish and Wildlife Service (USFWS)?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Project has a low potential to temporarily disturb least Bell's vireo (*Vireo bellii pusillus*), a state and federally listed species, or tricolored blackbird (*Agelaius tricolor*), a species that is a candidate for listing. It does not have a potential to "take" any listed species. The Project also has a potential to adversely affect burrowing owl, a special-status species that is present at the Project site. No additional special-status species were found during the field survey, but several special-status animals may be present on the Project site and are discussed below. If present on the site, the Project would have potential to cause disturbance to one or more of these species.

Listed Plant and Wildlife Species

No state or federally listed plants or animals were observed on the Project site or have potential to occur on the site. One state and federally listed endangered wildlife species, least Bell's vireo has a moderate potential to forage on the Project site but does not have a potential to nest there because of a lack of suitable nesting habitat. Tricolored blackbird, a candidate species for state listing, also has a moderate potential to forage on the Project site but has no potential to nest there due to lack of suitable habitat. Soil disturbance or grading activities associated with the Project could temporarily disturb these birds if they are foraging on the Project site, causing them to leave to forage elsewhere. These impacts should they occur would have negligible effects on the species because foraging habitat in the surrounding lands is similar to those present on the Project site. The Project activities would not cause "take" of either species. The Project's potential effects to listed plant or wildlife species would be less than significant.

Other Special-status Species

No special-status plants were observed on the Project site. In addition, there are no special-status plants that likely to occur on the site (see Table 2 in Appendix B). The Project is not expected to impact any special-status plants.

Burrowing owl (*Athene cunicularia*) was the only non-listed special-status species observed at the Project site. Several other non-listed special-status species have at least a moderate potential to be present but were not observed. These include, coastal whiptail (*Aspidoscelis tigris stejnegeri*), San Diego desert woodrat (*Neotoma lepida intermedia*), golden eagle (*Aquila chrysaetos*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), Lawrence's goldfinch (*Spinus lawrencei*), pallid bat (*Antrozous pallidus*), Western mastiff bat (*Eumops perotis californicus*), hoary bat (*Lasiurus cinereus*), Western yellow bat (*Lasiurus xanthinus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), and big free-tailed bat (*Nyctinomops macrotis*). These species and several others are described in more detail in the BRTR (Appendix B). Many of the birds and bats listed could forage on the site but have no potential to nest or roost on the site due to absence of suitable habitat. For these species, soil disturbance or grading activities could cause them to temporarily leave the area to forage elsewhere, but these impacts would be less than significant.

Project activities have a potential to kill, displace, or disturb burrowing owls. These impacts would be significant if they take place during the nesting season (February 1 to August 31) or if burrowing owls or active burrowing owl burrows are destroyed. Any significant impacts to burrowing owls can be reduced or avoided with implementation of the mitigation measures below which 1) require a pre-maintenance clearance survey of the Project site, 2) require on-site monitoring project activities, and 3) require avoidance of burrowing owls to the greatest extent practicable. These same measures would also ensure

that any impacts to other special-status species are kept below a level of significance. The Project's potential impacts to special-status wildlife would be less than significant within mitigation incorporated.

Nesting birds. The federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503, 3503.5, and 3513 prohibit take of migratory birds, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting). Measures listed below would avoid potential take or other adverse impacts to nesting birds by (1) avoiding habitat disturbance during nesting season if possible, (2) requiring a pre-maintenance clearance survey of the project site during bird nesting season; (3) identifying buffer areas around any bird nest within or near the Project site; (4) requiring on-site monitoring during Project activities.

Mitigation Measures. The following mitigation measures would reduce potentially significant impacts to special-status species and nesting birds to less than significant.

- BIO-1 Assign Project Biologist.* The San Bernardino County Flood Control District (District) will assign a qualified biologist to conduct pre-maintenance surveys, maintenance monitoring, and related tasks listed below. A "qualified biologist" is defined as a person with appropriate education, training, and experience to conduct such surveys and monitor project activities. The Project Biologist will be responsible for providing worker education programs and monitoring project activities. The Project Biologist will be authorized by the District to temporarily halt project activities if needed to prevent take of listed species or harm to any other special-status species.
- BIO-2 Pre-maintenance clearance survey.* Prior to the start of any project activities that would disturb soils or vegetation, the Project Biologist will survey the work area to determine if burrowing owls, nesting birds, coastal whiptail, or any other special-status species are present. Any special-status species shall be flagged and avoided as feasible.
- BIO-3 Nesting birds.* Project activities that would disturb soil or vegetation will be completed outside the breeding season (i.e., no removal of potential nesting habitat from February 1 through August 31), or after a pre-maintenance nesting bird survey has been completed. The Project Biologist will determine if birds are nesting in or adjacent to areas to be disturbed. If native birds are nesting on the site, then maintenance will be postponed until nesting is completed or the Project Biologist will designate appropriate avoidance buffers around nests to protect nesting birds. No project related disturbance will be allowed within these buffers. The Project Biologist will remove the buffers and allow project activities to continue once the nestlings have fledged or once the nest is no longer active.
- BIO-4 Burrowing owl.* The Project Biologist will survey the site in advance of all project activities to determine burrowing owl presence or absence. If burrowing owls are present on the site outside of the nesting season (September 1 to January 31) and maintenance activities are planned at the same location as the occupied burrow, then the California Department of Fish and Wildlife (CDFW) will be consulted and the Project Biologist may be authorized to exclude them from the site using passive exclusion methods described in the most recent CDFW staff report on burrowing owl mitigation (CDFG, 2012). If burrowing owls are present on the site during nesting season (February 1 through August 31), then project activities will either be postponed until nesting is completed, or the Project Biologist will monitor activities in the vicinity of the burrowing owl and will establish a buffer as needed to avoid direct impacts to the burrowing owls or occupied burrows.

BIO-5 *Biological Monitoring.* The Project Biologist will be present on the work site during all initial ground disturbance or vegetation clearing activities that are conducted during the nesting bird season (February 1 to August 31) to document compliance with the avoidance and minimization measures and any additional mitigation, and to provide guidance in avoiding or minimizing impacts to biological resources. Once initial ground disturbance and clearing is completed the Project Biologist should return on at least a weekly basis to ensure birds and other special-status species are being avoided and to inspect all the special-status species and evaluate the buffer distance.

b. *Would the project 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 U.S. Fish and Wildlife Service?*

NO IMPACT. No riparian habitat or other sensitive natural communities were identified on the Project site. No impacts would occur.

c. *Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?*

LESS THAN SIGNIFICANT WITH MITIGATION. There are 2.47 acres of federally jurisdictional wetlands and 3.5 acres of federally jurisdictional non-wetland water of the United States on the Project site. There is also a total of 6.41 acres of CDFW jurisdictional waters of the state present on the Project site that are regulated under section 1600 of the California Fish and Game Code. The Project has the potential to temporarily impact all jurisdictional features within the Project site but would not result in the permanent loss of these features and the impact itself would be less than significant (as described above regarding temporal loss of habitat, which would be offset by seasonal expansion of the habitat).

Although this impact would be less than significant, the alteration to these features would necessitate authorization from the following agencies:

- United States Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA);
- CDFW, under section 1600 of the California Fish and Game Code; and
- Santa Ana River Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA.

The mitigation measure below would require the District to obtain these authorizations to reduce impacts to less than significant.

BIO-6 *Required Permits.* The San Bernardino County Flood Control District will obtain all required permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife for impacts to jurisdictional waters of the state, federal wetlands, and non-wetland waters of the U.S.

d. *Would the project 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 wildlife nursery sites?*

LESS THAN SIGNIFICANT WITH MITIGATION. Wildlife may use the Project site on occasion to move around the general area or to travel along flood control channels in the vicinity. The Project would not erect

permanent or long-term barriers to wildlife movement, although there would be some short-term interruption of potential movement during Project activities. These short-term impacts would be less than significant because of the short duration and the routine maintenance activities being planned for daytime hours.

Wildlife nursery sites such as shrubs for birds; bare ground for ground-nesting birds; and burrows or other nesting areas for ground-dwelling vertebrates are present. Due to the availability of similar habitat surrounding the Project area, any loss of habitat would be negligible and less than significant.

There is a potential for nesting birds to be present on the Project site and to be impacted by Project activities. Mitigation Measure BIO-3 would require pre-maintenance nesting bird surveys on the Project area and would require avoidance of nests until the nestlings fledge or the nest is no longer active. Nesting bird buffers would be established, as needed to further avoid impacts to any nesting birds should they be present during Project activities. Implementation of Mitigation Measure BIO-3 would reduce impacts to less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. The Project site is located within the Chino Dairy Preserve open space area identified in the County of San Bernardino General Plan Open Space Element (County of San Bernardino, 2007). The Dairy Preserve was designated as open space to preserve habitat values and maintain dispersion area. The Open Space Element states that this open space should be maintained to prevent damage to important dispersion areas and habitat. The Project would not result in any long-term changes to the habitat in the designated open space. Any impacts to the designated open space would be less than significant because of the limited extent of habitat disturbance, which is offset by expanded habitat area, as well as the short duration and timing of all the ground-disturbing Project activities.

The County of San Bernardino Tree Removal Ordinance regulates the removal of trees not on government land and not subject to land use permitting processes. The proposed Project would not remove any trees that are large enough to require a Tree or Plant Removal Permit.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?

NO IMPACT. The Project site is not located within an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan. No impacts would occur.

C.5 Cultural Resources

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

Would 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 §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. A cultural resources record search was conducted at the South Central Coastal Information Center, the local repository for the California Historical Resources Information System (CHRIS) located at California State University, Fullerton. To identify any cultural resources on or near the maintenance Project site, a half-mile search radius was utilized around the Project area. The record search found that 19 previous projects have been conducted and 3 resources have been recorded within the record search area. Five of these previous projects intersect with the project area. No resources are within the Project area, and Chris Basin itself is not old enough to be considered a resource, therefore direct impacts to cultural resources are not anticipated (Leftwitch and Dyste, 2017).

The 3 resources within the record search area include:

P-36-012195 is historic SA CHUL Farm located at 13923 Archibald Avenue. It is an historic parcel with six structures that has never been evaluated for the NRHP or the CRHR.

P-36-012533 consists of a layer of engineered roadbed that includes building debris and historic-era artifacts; it lies beneath a portion of what is now Archibald Avenue. It was recommended not eligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

P-36-025440 is the Chino-Mira Loma No.1 Transmission Line. It has single circuit structures, and was recommended not eligible for the NRHP and CRHR. The Chino substation was built in 1917.

Project activities at Chris Basin will be temporary, therefore the project will not result in impacts to the setting of a historical resource that would cause a substantial change in significance.

No known resources eligible for the CRHR are present within the maintenance Project area. However, it is possible that previously unknown buried resources could be discovered and damaged or destroyed during ground-disturbing work, which would constitute a significant impact absent mitigation. Therefore, Mitigation Measure CUL-1 is recommended to reduce potential impacts to unanticipated historical resources to a less-than-significant level.

Mitigation Measure

CUL-1 *Management of Unanticipated Historical Resources or Unique Archaeological Resources.* If previously unidentified cultural resources are identified during ground-disturbing activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist or tribal representative assesses the significance of the resource. The archaeologist, in consultation with the San Bernardino County Flood Control District, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers or qualify as a unique archaeological resource under CEQA Section 21083.2.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. No known unique archaeological resources are present within maintenance Project area. However, it is possible that previously unknown unique archaeological resources could be discovered and damaged or destroyed during ground disturbing work, which would constitute a significant impact absent mitigation. Therefore, Mitigation Measure CUL-1 is recommended to reduce impacts to unique archaeological resources to a less-than-significant level.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. A paleontological record search was conducted at the Los Angeles County Natural History Museum (McLeod, 2017). Previous research in the region indicates that the surface exposures in the entire maintenance Project area consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains to the north. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers. At unknown depth, however, these deposits are probably underlain by older Quaternary deposits that may well contain significant fossil vertebrate remains.

The closest fossil vertebrate locality from similar older Quaternary deposits is LACM 7811, southeast of the maintenance Project area west of Mira Loma east of Archibald Avenue along Sumner Road north of Cloverdale Road, that produced a fossil specimen of whip snake, *Masticophis*, at a depth of 9 to 11 feet below the surface. Further to the south-southeast of the maintenance Project area, on the northwestern side of Corona west of Cota Street between Railroad Street and Harrington Street, our vertebrate fossil locality LACM 1207 produced a fossil specimen of deer, *Odocoileus*.

These discoveries indicate that the Project area is low sensitivity for paleontological resources based on the Society of Vertebrate Paleontology (SVP) guidelines (SVP, 2010). However, more sensitive strata may be present below 9 feet. As such, sensitive paleontological resources are unlikely to be impacted by the maintenance Project.

However, it is possible that previously unknown buried paleontological resources could be discovered and damaged or destroyed during ground-disturbing work, which would constitute a significant impact absent mitigation. Therefore, Mitigation Measure CUL-2 recommended to reduce impacts to paleontological resources to a less-than-significant level.

Mitigation Measure

CUL-2 *Incidental Discovery of Paleontological or Geological Resources.* If any unanticipated paleontological resources or unique geological resources are encountered during any ground-disturbing activities, work should be halted in the immediate vicinity of the find until the specimen(s) can be recovered, examined, identified, and recorded by a qualified paleontologist, and, if determined necessary, be prepared for permanent curation at an accredited museum repository.

d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. No known human remains are present within the maintenance Project area. However, it is possible that previously unknown human remains could be discovered and damaged or destroyed during ground disturbing work, which would constitute a significant impact absent mitigation. Therefore, Mitigation Measure CUL-3 is recommended to reduce impacts to human remains to a less-than-significant level.

Mitigation Measure

CUL-3 *Management of Unanticipated Human Remains.* All human remains discovered are to be treated with respect and dignity. In the event that human remains or potential human remains are discovered, ground-disturbing activities within the immediate area of the find shall be immediately halted. The Project Manager shall immediately notify the San Bernardino County Flood Control District Project Manager and the County Coroner. The County Coroner will make a determination as to the origin of the remains and, if determined to be of Native American origin, the Native American Heritage Commission (NAHC) will be contacted. In consultation with the Most Likely Descendant, the NAHC and qualified archeologist shall determine the disposition of the remains in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e). If the remains are not of Native American origin, the County Coroner will make a determination as to the disposition of the remains. Ground-disturbing activities may continue once compliance with all relevant sections of the California Health and Safety Code have been addressed and authorization to proceed issued by the County Coroner and the San Bernardino County Flood Control District.

C.6 Geology and Soils

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:				
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? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Be located on geologic units 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project 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? Refer to Division of Mines and Geology Special Publication 42.

NO IMPACT. The maintenance Project is in a seismically active region of Southern California in close proximity to faults of the San Andreas and Transverse Ranges Fault Systems. The Project site is within 20 miles of numerous active and potentially active faults including the Cucamonga, Chino, Sierra Madre, San Jacinto, and San Andreas faults (USGS, 2017); however, no known active or Alquist-Priolo zoned faults cross or are immediately adjacent to the Project site. Therefore, there is no potential for surface fault rupture at the Project site. No impact would occur.

ii) Strong seismic ground shaking?

LESS THAN SIGNIFICANT. The maintenance Project is in a seismically active area of Southern California in close proximity to active faults of the San Andreas and Transverse Ranges Fault Systems, including faults of the Elsinore, San Jacinto, San Andreas, and Sierra Madre fault zones. The Project site is located near to several faults capable of causing significant ground shaking at the Project site. The faults and their distances from the Project site are: the Cucamonga (10.6 miles north), Whittier (10.8 miles southwest), Sierra Madre (11.6 miles northwest), Elsinore (12.2 miles

southwest), San Jacinto (16.5 miles east), and the San Andreas (19.7 miles east) (USGS, 2017). Strong ground shaking should be expected in the event of a large earthquake on any of the major faults in the region or on the faults near the maintenance Project.

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the Project area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Project area. Earthquakes occurring on faults closest to the Project area would most likely generate the largest ground motion. The intensity of earthquake-induced ground motions can be described using peak site accelerations, represented as a fraction of the acceleration of gravity (g). The CGS Probabilistic Seismic Hazards Ground Motion Interpolator website was used to estimate peak ground accelerations (PGAs) at the Project site for a large regional or local earthquake (CGS, 2017). Peak ground acceleration is the maximum acceleration experienced by a particle on the Earth's surface during an earthquake, and the units of acceleration are most commonly measured in terms of fractions of g, the acceleration due to gravity (980 cm/sec²). The interpolator uses data from the 2008 Probabilistic Seismic Hazard Assessment Maps (PSHA) to interpolate peak ground accelerations. The PSHA results correspond to peak ground accelerations (PGAs) of 0.45g with a 10 percent probability of exceedance in 50 years (an earthquake return interval of 475 years for the maximum considered earthquake) and 0.69g with a 2 percent probability of exceedance in 50 years (an earthquake return interval of 2,475 years for a maximum considered earthquake) (CGS, 2017). These PGAs correspond to moderate to strong ground shaking.

Although the site is likely to experience moderate to strong ground shaking within its lifetime, the maintenance Project consists only of maintenance activities within an existing detention basin and would not include new utilities, structures, or habitable buildings, and would therefore not result in a change or increase in the seismic hazard to people or other structures within the detention basin. In the event earthquake ground shaking causes damage to the existing detention basin structures (inverts, levees, and concrete inlet and outlet structures), such damage could be readily repaired and the basin put back into use, resulting in a less than significant impact.

iii) Seismic-related ground failure, including liquefaction?

NO IMPACT. Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects. In addition, densification of the soil resulting in vertical settlement of the ground can also occur. This phenomenon can result in damage to infrastructure, including foundations. The San Bernardino County Geologic Hazard Maps for the Project area present liquefaction susceptibility for the area, and although liquefaction susceptibility of the area immediate area around the Project site is not mapped, nearby areas underlain by similar alluvial geology are mapped as having low liquefaction susceptibility (San Bernardino County, 2010). A review of water level data from the California Department of Water Resources (DWR) Water Data Library website (DWR, 2017) indicates water levels in the Project area are greater than 140 to 200 feet below ground surface (bgs). Based on the County of San Bernardino Geologic Hazard Map indicating low liquefaction susceptibility in the general Project area and the deep groundwater levels in the area, it is unlikely that the Project site

would experience liquefaction related phenomena during an earthquake. Additionally, as discussed above, the maintenance Project consists only of maintenance activities within an existing detention basin and would not include new utilities, structures, or habitable buildings, and would therefore not result in a change or increase in the seismic hazard to people or other structures at the Project site. No Impact would occur.

Other types of seismic-related ground failures may include landslides and lateral spreading. Lateral spreading is the lateral movement or displacement of gently to steeply sloping, saturated soil deposits caused by liquefaction. As liquefaction is not likely to occur, lateral spreading is also not likely to occur at the site due to the very deep groundwater at the site. The Project site is located along a generally flat alluvial fan/alluvial wash and would not therefore be susceptible to landslides or lateral spreading. No impact would occur from earthquake induced landslides or lateral spreading.

iv) Landslides?

NO IMPACT. As described above, the Project site is located on generally flat alluvial wash/alluvial fan and is not located in an area considered susceptible to landslides. The Project would not expose people or the environment to adverse effects associated with landslides. No impact would occur.

b. Would the project result in substantial soil erosion or the loss of topsoil?

NO IMPACT. The NRCS soil unit underlying the maintenance Project, the Dehli fine sand unit, has high susceptibility to sheet and rill erosion by water and high susceptibility to wind erosion (NRCS, 2017). The maintenance Project only includes annual and semiannual inspection and maintenance activities, and does not include construction of any new facilities, structures, or buildings. None of the proposed maintenance activities are expected to result in ground disturbance beyond the engineered conditions needed for flood control protection. It is not anticipated that the Project would result in substantial soil erosion due to the lack of ground disturbance for the maintenance Project. Therefore, no impact would occur.

c. Would the project be located on geologic units 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?

NO IMPACT. As described above, the Project site is in an area of low liquefaction susceptibility. Additionally, as the Project only consists of maintenance activities within an existing detention basin and would not include new utilities or habitable structures, there would be no change in the potential geologic or seismic hazard to people or other structures at the Project site. The Project is not located in an area that is susceptible to landslides or lateral spreading. No impact would occur from liquefaction, landslides, or earthquake induced lateral spreading.

d. Would the project 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?

NO IMPACT. Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to variation in soil moisture content. Changes in soil moisture could result from a number of factors, including rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soils are typically very fine grained with a high to very high percentage of clay. Soils with moderate to high shrink-swell potential would be classified as expansive soils. The Delhi fine sand soil unit underlying the Project site is formed in sandy alluvium and has low shrink swell potential and thus is

not expansive (NRCS, 2017). As there are no new structures being constructed as part of the maintenance Project and the soils are not expansive, there would be no impact.

e. Would the project 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?

NO IMPACT. The maintenance Project does not include installation of septic tanks or alternative wastewater disposal systems. No impact would occur.

C.7 Greenhouse Gas Emissions

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT IMPACT. The maintenance Project would generate greenhouse gas (GHG) emissions through ongoing maintenance activities. These activities, while short-term per event (four weeks or less), would be ongoing as needed in perpetuity. The maintenance activities would cause GHG emissions directly from the off-road heavy-duty equipment and the on-road motor vehicles needed to mobilize crew, equipment, and materials. The Project would also create a small amount of indirect GHG emissions from water use and from the reduction in vegetative CO₂ uptake, but there is no incremental electricity use associated with this Project. These indirect GHG emissions are negligible and were not calculated for this Project.

The South Coast Air Quality Management District (SCAQMD) has established a GHG significance threshold of 11,023 tons (10,000 metric tons) per year (SCAQMD, 2015). The GHG emissions estimate calculations for the Project's annual maintenance activities are provided in Appendix A, and the summary of the proposed Project's carbon dioxide equivalent (CO₂e) emissions estimates is shown in Table C.7-1.

Table C.7-1. Greenhouse Gas Emissions	
	GHG Emissions (Tons CO ₂ e)
On-road Vehicles	78
Off-road Equipment	115
Total Maintenance Emissions	193
SCAQMD GHG Emissions Significance Threshold ¹	11,023
Exceeds Thresholds?	No

Source: Appendix A; SCAQMD, 2015.

The maintenance Project's determined worst-case annual GHG emissions, shown above in Table C.7-1, are well below the SCAQMD GHG emissions significance threshold. Therefore, the Project would have less-than-significant GHG emissions impacts.

b. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT IMPACT. Climate change is a global phenomenon, and the regulatory background and scientific data are changing rapidly. In 2006, the California state legislature adopted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 describes how global climate change

would affect the environment in California. The impacts described in AB 32 include changing sea levels, changes in snow pack and availability of potable water, changes in storm flows and flood inundation zones, and other impacts.

The GHG emissions for the maintenance Project, as described above, are expected to be minimal and would be well below the threshold of the federal and State mandatory reporting regulation. The proposed Project's GHG emissions would not trigger regulatory action under the federal 40 CFR Part 52 and the State Cap-and-Trade regulations.

A summary of the compliance with all potentially applicable GHG plans, policies, and regulations is provided in Table C.7-2.

Table C.7-2. Project Consistency with Applicable Plans, Policies, and Regulations for GHG Emissions		
Adopted Plan, Policy, or Regulation	Consistency Determination	Proposed Project Consistency
Federal		
40 CFR Part 98. Mandatory Reporting of Greenhouse Gases Rule.	Not Applicable	The proposed project would not have emissions sources that would be subject to this regulation.
40 CFR Part 52. Proposed Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.	Not Applicable	The proposed project would not have emissions sources that would be subject to this regulation.
State		
AB 32. Annual GHG Emissions Reporting	Not Applicable	The proposed project does not include emissions sources that would be subject to this regulation.
AB 32. Cap-and-trade	Not Applicable	The proposed project does not include emissions sources that would be subject to this regulation.
Local		
San Bernardino County Greenhouse Gas Emissions Reduction Plan (San Bernardino County, 2015)	Consistent	Table C.7-1 indicates that the annual GHG emissions are below the San Bernardino GHG Emissions Reduction Plan review standard threshold of 3,000 MT CO ₂ e per year.

Table C.7-3 identifies current potentially applicable California emission reduction strategies to reduce GHGs and identifies the Project design feature or mitigation measure that is proposed to comply with these potentially applicable strategies.

Table C.7-3. California GHG reduction strategies

Strategy	Project Design/Mitigation to Comply with Strategy
Vehicle Climate Change Standards	These are ARB enforced standards; vehicles that access the project that are required to comply with the standards would comply with these strategies.
Limit Idling Time for Commercial Vehicles	Project vehicles would be required to comply with ARB idling restriction regulations.
Construction and Demolition Waste Reduction	Routine maintenance wastes, specifically any asphalt and concrete wastes, would be recycled to the extent feasible.
Increase Water Use Efficiency	The project would only use water as necessary to comply with regulations for dust control.
Building Energy Efficiency Standards	Not applicable.
Appliance Energy Efficiency	Not applicable.
California Solar Initiative	Not applicable.

Source: OPR 2008; CAPCOA 2009

This Project would not conflict with state and local GHG emissions reduction plans and policies.

In summary, the maintenance Project would conform to State and local GHG emissions/climate change regulations and policies/strategies; therefore, the proposed Project would have less-than-significant GHG impacts.

C.8 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
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"/>
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"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

NO IMPACT. The maintenance Project would include the periodic use and transport of hazardous materials in the form of fuels and lubricants required to operate maintenance vehicles and equipment and herbicides for controlling weeds and invasive vegetation. These materials would only be used during maintenance activities and would not be stored on site during normal operation of the basin. The periodic use of these hazardous materials during maintenance activities is not unusual and would occur in compliance with best management practices (BMPs) to avoid accidental leaks or spills. Materials used during Project maintenance activities would not present a significant hazard to the public or the environment. No impact would occur.

b. Would the project 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?

NO IMPACT. As described above, the maintenance Project would require the use of hazardous materials in the form of vehicle fuels and other materials required to operate maintenance vehicles and

equipment and herbicides to control weeds and invasive plants. Operation of the Project would not include the routine transport, use, or disposal of hazardous materials. There is no reasonably foreseeable upset or accident condition involving the release of hazardous materials as a result of the Project. No impact would occur.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NO IMPACT. No schools are located within one-quarter mile of the maintenance Project. The maintenance Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste in proximity to any existing or proposed school. No impact would occur.

d. Would the project be located on a site that 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?

NO IMPACT. A review of the California State Water Resources Control Board (SWRQCB) GeoTracker website indicates that no listed hazardous material sites are located on or immediately adjacent to the maintenance Project site (SWRCB, 2017). GeoTracker is a data management system for hazardous material sites and contains sites that require cleanup (Department of Toxic Substance Control, Leaking Underground Storage Tanks, Department of Defense, and Site Cleanup Programs) as well as permitted facilities that could impact groundwater (Irrigated Lands, Oil and Gas Production, operating USTs, and Land Disposal sites) and meets Government Code Section 65962.5 (Cortese List) requirements. Although no sites were identified with an address at or adjacent to the Project site, GeoTracker did identify a contaminated groundwater plume underlying the site that originated approximately 0.9 miles northeast, near the intersection of South Archibald Avenue and East Riverside Drive. The plume trends north to south with the highest levels of trichloroethene (TCE) located just north of the Project site; the predominant flow direction is to the south towards the Chino Basin Desalter Authority (CDA) desalter wells (Dudek, 2017). Contaminants within the plume consist primarily of volatile organic compounds (VOCs) with TCE being the predominant VOC contaminant. Studies of the plume indicate that in the Project area the water level and surface of the plume is at depths of about 160 feet MSL or greater (EKI, 2011).

The maintenance Project site is routine maintenance of an earthen basin with no structures other than concrete inlet and outlet structures. The maintenance Project will not include ground disturbance other than what is required for maintenance of the earthen slopes and inlet and outlet structures, and will not include any groundwater dewatering. Therefore, as the Project site is not located on a listed hazardous material site and maintenance Project activities would not encounter the contaminated plume at depths of 160 feet or greater, it would not create a significant hazard to the public or the environment. No impact would occur.

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?

NO IMPACT. The Chino Airport is located approximately 2.4 miles southwest of the Project site and the Ontario International Airport is located approximately 3.3 miles north of the Project site. Both airports have adopted airport land use plans. The Project site is not located within the Chino Airport's Referral Areas (areas of potential land use restrictions or safety Hazards) or within any of the Safety Zones (San Bernardino County, 1991). The maintenance Project is located within the mapped Airport Influence Area

(City of Ontario, 2011a) of the Ontario International Airport Land Use Compatibility Plan, however it is not included in any of the Ontario International Airport Safety Zones (City of Ontario, 2011b). Although the Project site is within the land use plan of the Ontario International Airport, the maintenance Project would not involve the construction or operation of habitable or new above grade structures and it is not within mapped safety zones (City of Ontario, 2011b). Therefore, the maintenance Project would not result in an aviation related safety hazards for people residing or working in the area. No impact would occur.

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?

NO IMPACT. No private airstrips or airports are located in the vicinity of the maintenance Project; the closest airport is Chino Airport (discussed above). Therefore, the maintenance Project would not result in a safety hazard for people residing or working in the Project area due to local private airstrips or airports. No impact would occur.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

NO IMPACT. Implementation of the maintenance Project would not require any detours or road closures during maintenance at the Project site. Access to and operation of all roads within the vicinity of the maintenance Project would not be altered or impaired. No impact would occur.

h. Would the project 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?

NO IMPACT. The maintenance Project is in a developed part of the City of Ontario dominant land uses in the vicinity include: industrial (primarily construction yards), agricultural, and residential. Vegetation in the area consists of limited landscaping, agricultural crops, and weeds within the Chris and adjacent basins. Due to the limited vegetation in the vicinity, the proposed maintenance Project is not expected to increase fire risks or expose people or structures to a significant risk of loss, injury, and/or death involving wildland fires. The maintenance Project site is not located on forest or wilderness land, and the maintenance Project would not involve the construction or operation of habitable structures in wildland areas or promote development in wildland areas. The maintenance Project would not introduce adverse impacts associated with wildland fires. No impact would occur.

C.9 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY

Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater discharge such that there would be a net deficit in the 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 which would result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. Cause inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project violate any water quality standards or waste discharge requirements?

LESS THAN SIGNIFICANT IMPACT. During routine maintenance activities, there could be the potential for spills of oil, grease, or other water contaminants associated with the use of vehicles, equipment, and materials used in the maintenance. There could also be a potential for the disturbance of the existing native soil through sediment removal, which could lead to water contamination through the transport of sediment to downstream waters. Maintenance activities will include chemical vegetation management and vector control which could introduce toxic chemical compounds to the surface water, ground water and soil.

The potential for spills would be minor since there would be no new construction only maintenance type activities and proper Best Management Practices would be implemented during all maintenance activities. Because the project is the maintenance of an existing earthen basin, flow velocities in the basin are typically low, which would result in deposition of sediment deposition rather than transport of sediment to downstream waters.

Required permits and approvals applicable to the proposed project are identified in Section A.4 (Required Permits and Approvals). The project is located within the jurisdiction of the Santa Ana Regional Water

Quality Control Board (RWQCB) and is subject to the management direction of the Water Quality Control Plan for the Santa Ana River Basin region.

All maintenance activities will comply with MS4 Permit Order No. R8-2010-0036 (National Pollutant Discharge Elimination System No. CAS618036) issued by the Santa Ana Regional Water Quality Control Board. The MS4 permit is intended to ensure non-degradation of waters of the State and U.S. The permit requirements ensure compliance with the Santa Ana River Basin Water Quality Control Plan, which establishes water quality standards for the ground and surface waters of the region, includes procedures to protect the beneficial uses of specific waterbodies, and describes the levels of quality which must be met and maintained to protect those uses.

All aquatic herbicide applications for the control of weeds and for the control of vectors will be consistent with the two NPDES Aquatic Pesticide General Permits (CAG99005 and CAG99004). All aquatic pesticide weed applications conducted at Chris Basin will be carried out by the Agriculture/Weights and Measures Department (Ag) at the request of the Zone 1 District Operations Supervisor. Aquatic pesticide application rates are determined by licensed applicators and are made in a manner consistent with all product label instructions and Material Safety Data Sheets (MSDS). Applications will be made only when and where suitable, based on presence and location of undesired weeds, and in consideration of meteorological conditions favorable to efficacious product use (not windy, raining, and temperate). Applications at Chris Basin will be made during maintenance periods when and where needed. The San Bernardino County Agriculture Commissioner reports all pesticide applications at District facilities to the SARWQCB per the State Department of Agriculture pesticide regulations, in addition to the aquatic pesticide Permit reporting regulations (LIP Section 10.7.3; Aquatic Pesticide Application Plan (APAP) Chapter 9). All herbicide use will be consistent with the District NPDES permit, which outlines a schedule of monitoring requirements, BMPs, and conditions designed to promote the reduction of pollutants in stormwater discharges. The permit requires the District to implement the recommendations in the California Stormwater Quality Association Stormwater Best Management Practice Handbook for Municipal activities to ensure that public agency facilities and activities do not contribute pollutants to receiving waters.

West Valley Mosquito & Vector Control District (West Valley) currently performs vector control activities, including the application of pesticides within Chris Basin, under a Memorandum of Understanding dated July 12, 2016. These vector control applications are determined based on monthly site visits and testing by West Valley staff. In past years Chris Basin has tested positive for the West Nile virus and has needed treatment for vectors carrying this disease. West Valley staff will complete all records of pesticide applications that take place at Chris Basin based on state guidelines and will provide those reports to the District. Further, it is the responsibility of West Valley to reports all pesticide applications to the Santa Ana Regional Water Quality Control Board or as outlined under their NPDES permit.

There are 2.47 acres of federally jurisdictional wetlands and 3.5 acres of federally jurisdictional non-wetland water of the United States on the project site. There is also a total of 6.41 acres of jurisdictional waters of the state present on the project site that are regulated under Section 1600 of the California Fish and Game Code. Therefore, a CWA Section 404 permit and Section 1600 Streambed Alteration Agreement would be required. A 404 Permit would ensure minimization of, and mitigation of, impacts to Waters of the U.S. A water quality certification from the RWQCB would be required under Section 401 of the CWA. See Section C.4 (Biological Resources) for additional information on these permits.

The permit restrictions, including the District's MS4, the Santa Ana River Basin Water Quality Control Plan, Section 401 and 404 of the Clean Water Act, and best management practices and minimization measures imposed by EMD, will ensure that the moderate potential for surface water and ground water contamination from the proposed maintenance activities be less than significant.

Chris Basin has been identified as impaired an waterbody by County of San Bernardino County NPDES Staff due to large amounts of bacteria, but neither Chris Basin nor Deer Creek Channel are listed as impaired by the State Water Resources Control Board [California State Water Resources Control Board Final 2010 Integrated Report (SWRCB, 2010)]. The nearest impaired water body is Cucamonga Creek, located immediately downstream of Chris Basin. Cucamonga Creek is listed as impaired for cadmium, coliform bacteria, copper, lead, and zinc. The proposed NPDES Bacteria Reduction Pilot Project is intended to achieve compliance with the Comprehensive Bacteria Reduction Plan implemented by the District in compliance with RWQCB Order No. R8-2010-0036. Water quality benefits of the pilot program would include treatment of dry-weather Total Maximum Daily Load (TMDL) set by the RWQCB for bacteria and pathogens. A reduction in the pollutants of concern is expected through the process of infiltration, plant use and uptake, adsorption, and destruction by UV, resulting in a water quality benefit.

b. Would the project 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)?

NO IMPACT. The proposed maintenance Project does not involve the pumping of local groundwater resources, and would not introduce new impervious areas such that recharge rates or patterns would be affected. Any water needed for implementation of the proposed project would be obtained from a local water purveyor. No impact to groundwater resources would occur.

c. Would the project 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, which would result in substantial erosion or siltation on or off site?

NO IMPACT. The proposed maintenance Project is an existing earthen basin that is intended to slow and temporarily hold flood waters during storm events. Rather than induce erosion, the slowed flows within the basin would retard erosion within the basin and more likely induce deposition. The proposed maintenance activities for the existing basin, and pilot project, would not affect the storage of water and would have no effect on erosion.

d. Would the project 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?

NO IMPACT. The proposed maintenance Project consists of routine maintenance activities such as reconstruction of the existing low-flow channel, vegetation removal, and other maintenance activities, which could take place within the bottom of the existing earthen basin, and which would not alter the overall drainage pattern. Minor alterations to the drainage pattern within the basin, due to the construction of the meandering low flow channel, would have no effect on drainage patterns outside the basin.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to provide substantial additional sources of polluted runoff?

NO IMPACT. The proposed Project is the routine maintenance within an existing flood-control facility and will have no adverse effect on the capacity of the basin. All material for the low-flow channel berms would come from within the basin, resulting in no loss of capacity. Basin capacity, and flood-control capability would be enhanced by the project due to vegetation management.

f. Would the project otherwise substantially degrade water quality?

NO IMPACT. As described under Items “a” and “c”, potential degradation to water quality would be temporary and less than significant. Long-term, a benefit to water quality is expected due to the bacteria reduction. No additional water quality impacts would occur.

g. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. The proposed maintenance Project would not involve the construction of any housing or habitable structures. No impact would occur.

h. Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?

NO IMPACT. The proposed maintenance Project would not involve the construction of structures within the floodplain.

i. Would the project 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?

NO IMPACT. The site of the proposed maintenance Project is itself a detention basin. The proposed maintenance activities would improve the integrity of the existing basin rather than increase the risk of failure.

j. Would the project cause inundation by seiche, tsunami, or mudflow?

NO IMPACT. The proposed maintenance Project is within a flood-control basin intended to reduce flooding impacts, including any from mudflows that may enter the basin. There is no lake or ocean nearby which could create seiche or tsunami.

C.10 Land Use and Planning

LAND USE PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.10.2 Environmental Impacts and Mitigation Measures

a. Would the project physically divide an established community?

NO IMPACT. A community may be divided if a project were to introduce a physical barrier through that community (e.g., a linear project). The proposed annual routine maintenance activities of the Project would include a Bacteria Reduction Pilot Project (NPDES), vector management, and routine maintenance activities. All of the proposed activities would be contained within the District's flood control ROW. The project would not introduce any new infrastructure that would create a barrier across an existing community. No impact would occur under this criterion.

b. Would the project 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?

NO IMPACT. The Project site is located in the City of Ontario and is owned and operated by the District. The land use plans applicable to the maintenance Project include the City of Ontario's General Plan (also called the City's Policy Plan), the City's Development Code, and the Countryside Specific Plan. The City of Ontario is also entirely within the Airport Influence Area of Ontario International Airport and is subject to the restrictions for land use as set forth in the Ontario International Airport Land Use Compatibility Plan (City of Ontario, 2011). A review of the Ontario International Airport Land Use Compatibility Plan's policies and criteria to establish thresholds has found that none of the Project components would conflict with the noise and safety impact zones of this plan.

The City of Ontario's Land Use designation for the Project site is Open Space-Non Recreation (City of Ontario, 2010). The intention for this designation by the City of Ontario includes utility easements and drainage channels (City of Ontario, 2016). The Open Space-Non Recreation land use designation is currently implemented by the City's Utilities Corridor (UC) Zoning District, which was established to accommodate flood control channels, retention and detention basins, and electrical transmission corridors and landfills (Ontario, 2016). The retention and detention of a basin is explicitly included as a use within the UC Zoning District, and is a listed objective of this Project. Therefore, the maintenance Project would be consistent with this land use designation. The City of Ontario's Zoning Map also identifies the Project site as being within the Countryside Specific Plan (City of Ontario, 2015). The Countryside Specific Plan, which was adopted on April 18, 2006, is a proposal for development of a planned community designed to blend with and become a part of the overall existing larger community

of Ontario (City of Ontario, 2006a). The Chris Basin is on the southwest boundary of the specific plan area, and land uses to the east of the basin are designated by the specific plan as Residential-Low Density. Although the basin is included within the Countryside Specific Plan Land Use Map, the basin's land use and ownership would not change under the specific plan (City of Ontario, 2006a and 2006b).

Existing land use surrounding the maintenance Project site include agriculture, industrial uses, and residential communities. The maintenance Project would result in a series of activities intended to promote the operation and maintenance of the existing drainage basin, and these activities would comply with the intended use of the Project site. None of the proposed activities would interfere with the current and proposed uses surrounding the Project site. Further, proposed activities would be contained within the District's flood control ROW, and would not affect the designation or use of lands outside of the Project site. All maintenance Project activities would be consistent with existing land use designations and proposed zoning designations. In good faith and to the greatest extent feasible, the District would comply with City of Ontario and County of San Bernardino policies and procedures that are applicable to the proposed activities. No impact would occur under this criterion.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The Project site is not located within a habitat conservation plan or natural community conservation plan, and no conflict with a conservation plan would occur. See Section C.4, Biological Resources, for further information regarding local policies or ordinances protecting biological resources.

C.11 Mineral Resources

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project 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?

NO IMPACT. Mineral resources are solid, inorganic substances typically obtained through mining, including sand, gravel (aggregate resources), as well as metals such as gold and silver. A variety of mineral resources are available in the Southern California area. In the Project region the most commonly mined mineral resource is aggregate which includes sand, gravel, and crushed rock. The Project area is within the Chino Basin, an alluvial-filled valley with up to 1000 feet of sediment. The Project area is mapped by the California Geological Survey (CGS), under the Surface Mining and Reclamation Act (SMARA), as a MRZ-3 (CGS, 1984). A MRZ-3 is an area which has been designated as an area with known or inferred mineral resources but the significance of these resources cannot be determined with the existing data. In the Project area, the identified mineral resource is aggregate.

The USGS Mineral Resources Database System (USGS, 2017), which provides data on metallic and nonmetallic mineral resources, including deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references, and the County of San Bernardino list of active mines (San Bernardino County, 2017) were reviewed for the presence of known and active mineral resource sites at or adjacent to the Project site. The review indicates that there are no mapped mineral resource sites or mines at or adjacent to the Project site.

There are no known or active mines at the Project site and the proposed Project only consists of maintenance activities at an existing detention basin and does not include any new buildings or structures, therefore the maintenance Project would not restrict or cause loss of availability of potential aggregate or other mineral resources in the Project area. No impact would occur.

b. Would the project 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?

NO IMPACT. As noted above, the Project is in an area classified by the CGS as MRZ-3 with known or inferred mineral resources but with undetermined significance and this area is not identified as a locally important resource area on any local plans. As the maintenance Project consists of varying maintenance activities within an existing earthen basin and does not include the construction of any new structures and/or buildings, there would be no adverse effects on mineral resources, nor would future mineral extraction operations occur within the basin. Therefore, no impact would occur.

C.12 Noise

NOISE

Would the project:

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project result in 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?

LESS THAN SIGNIFICANT IMPACT. The maintenance Project would generate temporary noise only during implementation of maintenance activities; noise generated by maintenance activities would be comparable to construction noise. The County of San Bernardino 2007 General Plan Noise Element (San Bernardino County, 2007a [Chapter VII]) defines noise-sensitive land uses as residences, schools, churches, and parks. However, the Noise Element does not include any applicable goals or policies related to construction noise compatibility. The County of San Bernardino 2007 Development Code defines noise-sensitive land uses as residential uses, schools, hospitals, nursing homes, religious institutions, libraries, and similar uses (San Bernardino County, 2007b [Chapter 83.01 General Performance Standards]). Applicable sections of the San Bernardino County Development Code that regulate construction noise include:

- **Section 83.01.080(g) – Exempt Noise:** Noise from temporary construction, maintenance, repair or demolition activities is exempt between 7:00 a.m. and 7:00 p.m., except Sundays and federal holidays.

The City of Ontario Municipal Code includes the following applicable sections that pertain to construction noise (City of Ontario, 2017):

- **Section 5-29.08 – Real Property Maintenance Noise Regulations, (a):** No person, while engaged in maintenance of real property, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, except between the hours of 8:00 a.m. and 6:00 p.m.
- **Section 5-29.09 – Construction Activity Noise Regulations, (c) Exceptions (2):** The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting

pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency.

- Routine maintenance and repair activities would include use of both hand tools and mechanical equipment during maintenance of the earthen basin, invert, drainage structures, center flow maintenance, debris and trash removal, maintenance of existing access roads and ramps, vegetation management, and other related activities. The use of mechanical equipment as well as maintenance/repair activities would generate temporary noise within the project site. However, these maintenance/repair activities would occur on an as needed basis throughout the year, as many as four times annually, and would last no more than 25 days per maintenance occurrence. All activities would normally occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday. If an emergency situation should arise requiring maintenance within the basin outside of regular operation hours then the proper emergency protocols will be followed.
- As discussed above, temporary noise from the project (considered “construction” noise) would typically occur during times exempt from any performance standards identified in Section 83.01.080 of the County Development Code (per Section 83.01.080g of the County Development Code) and Section 5-29.08 of the City of Ontario Municipal Code. Furthermore, should maintenance be required outside of these hours, any temporary noise is considered consistent with the performance standards and policies contained within San Bernardino County Development Code Section 83.01. Such noise would also be considered exempt under Section 5-29.09 of the City of Ontario Municipal Code. This impact would be less-than-significant.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT IMPACT. Section A.3 describes the types of equipment anticipated to be required during routine maintenance and repair activities under the maintenance Project. Heavy equipment use, primarily during maintenance of the earthen basin, invert, drainage structures; center flow maintenance, and maintenance of existing access roads and ramps, has the potential to generate groundborne vibration. Additionally, heavy truck haul trips may produce short-term groundborne vibration.

Typically, groundborne vibrations generated by man-made activities attenuate rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source (FTA, 2006). The nearest sensitive receptors to the proposed Project site are residential homes located approximately 1,300 feet east of the Project site. Because no sensitive receptors or structures are located proximate (within 500 feet) to the Project site, temporary construction vibration at the site would have no impact to any sensitive receptors. Furthermore, heavy truck haul trips during the temporary construction period would only utilize roads designated for allowable weight and use. Therefore, any structures located proximate to those roads are already subject to any momentary vibration from heavy truck transit.

The City of Ontario Municipal Code does not include any applicable regulations or sections pertaining to the temporary generation of vibration through maintenance/construction activities (City of Ontario, 2017). Applicable sections of the San Bernardino County Development Code that regulate construction vibration include:

- **Section 83.01.090(c) – Exempt Vibrations.** Vibration from temporary construction, maintenance, repair or demolition activities is exempt between 7:00 a.m. and 7:00 p.m., except Sundays and federal holidays.

All maintenance activities would occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday. If an emergency situation should arise requiring maintenance within the basin outside of regular operation hours then the proper emergency protocols would be followed. As shown above, temporary vibration from maintenance activities would typically occur during times exempt from any performance standards identified in Section 83.01.090 of the County Development Code (per Section 83.01.090c of the County Development Code). Based on the distance of the nearest sensitive receptors and exempt status of any vibration occurring during normal work hours, routine maintenance and repair activities from the maintenance Project would result in less than significant vibration impacts.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

NO IMPACT. Maintenance/repair activities would occur on an as needed basis throughout the year, as many as four times annually, and would last no more than 25 days per maintenance occurrence. Due to the temporary nature of these activities, the maintenance Project would not result in any activities that could result in a substantial permanent increase in ambient noise levels in the Project vicinity. No impact would occur.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

LESS THAN SIGNIFICANT IMPACT. Land uses near the maintenance Project include undeveloped land directly north, west, and south. Industrial development is located directly adjacent to Chris Basin to the east, with residential development east of that (to the east of Archibald Avenue). Based on the land uses surrounding the Project site, exterior daytime noise levels are expected to be approximately 55-65dBA within the Project site and at adjacent land uses.

Section A.3 describes the types of equipment anticipated to be required during routine maintenance/repair activities. Decibel levels for typical pieces of stationary and mobile construction equipment (at 50-feet from the source) are expected to range between 75-80dBA (FHWA, 2006). While ambient noise levels adjacent to the Project site may increase temporarily during each 25-day maintenance period, the adjacent land uses are not sensitive noise receptors; additionally, with any temporary increase to ambient noise levels adjacent to the site not considered substantial.

The nearest known sensitive receptors to the Project site are residences located approximately 1,300 feet east, and shielded by industrial development directly adjacent to the Project site. At this distance and given the attenuation of adjacent industrial structures, temporary noise generated within the Project site from proposed maintenance and repair activities would attenuate below the expected ambient daytime exterior levels at the nearest residential receptors. Heavy truck haul trips during the temporary maintenance period would not utilize roadways containing residences or other noise sensitive receptors. Therefore, temporary noise from routine maintenance and repair activities would not increase ambient noise conditions at the nearest sensitive receptor locations and would result in a less-than-significant impact.

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?

NO IMPACT. The nearest civil aviation facilities to the maintenance Project site are Ontario International Airport, which is located approximately 3.3 miles north of the proposed Project site, and the Chino Airport which is located approximately 2.4 miles southwest of the Project site. Given the distance of

these airports to the Project and the temporary duration of proposed maintenance and repair activities, the Project would not subject workers to excessive aviation-generated noise levels. The Project does not include any residential development. No impact would occur.

f. For a project within the vicinity of a private air strip, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. There are no known private airstrips located within five miles from the maintenance Project site. Therefore, the proposed Project would not subject workers to any aviation-generated noise levels from private air strips. No impacts would occur.

C.13 Population and Housing

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project 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)?

NO IMPACT. Maintenance/repair activities would occur on an as needed basis throughout the year, as many as four times annually, and would last no more than 25 days per maintenance occurrence. All maintenance activities would be performed by the District's Operations Staff and/or contractors. Proposed maintenance and repair activities would not induce an increase in population levels or a decrease in available housing, and no impacts to existing or future population growth levels would occur from the maintenance Project. No impact would occur with respect to induced population.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The maintenance Project site does not contain any habitable structures. Therefore, implementation of the maintenance Project would not result in the displacement of housing, nor would it necessitate the construction of replacement housing. No impacts would occur.

c. Would the project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

NO IMPACT. As stated in Section C.13(b) above, there is no housing located within the maintenance Project site and no housing would be removed or temporarily displaced as part of the maintenance Project. No impacts would occur.

C.14 Public Services

PUBLIC SERVICES

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:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

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:

a) Fire protection?

LESS THAN SIGNIFICANT IMPACT. The City of Ontario Fire Department would provide fire suppression and emergency medical services to the Project area. The primary fire station that would serve the Project area is Station 6, located at 2931 E. Philadelphia Street, Ontario, California, approximately 2 miles northeast of the maintenance Project site. Based on the maps of the Fire Hazard Severity Zones provided by the California Department of Forestry and Fire Protection (CAL FIRE), the maintenance Project site is not located within Fire Hazard Severity Zone (CAL FIRE, 2008).

Project maintenance activities are not expected to significantly increase the risk of fire. Watering activities associated with dust suppression and the use of hand tools and herbicides for weed control would reduce the potential for fire accidents to occur. Furthermore, because all adjacent lands are developed, the risk of wildfire spreading is minimal. Vegetation management associated with the maintenance activities under the maintenance Project would ensure the site is maintained in a manner to reduce the risk of fire occurring within the site. Furthermore, the maintenance activities would include debris and trash removal, maintenance of chain link fencing and gates, and homeless management (cleanup and removal as needed). These activities are considered to reduce the potential of fires and fire service calls to the site.

Emergency response via the fire department could be required at the project site in the event of an accident. However, the likelihood of an accident requiring such a response is unknown and is not expected to be significant as maintenance/repair activities associated with the maintenance project would last up to 25 days, on an as needed basis. Furthermore, the maintenance project would not induce an increase in population. The maintenance project would have a less-than-significant impact

with respect to disrupting existing fire service levels and would not require new or expanded fire facilities.

b) Police Protection?

LESS THAN SIGNIFICANT IMPACT. Police protection services in the Project area are provided by the City of Ontario Police Department, which is located at 2500 South Archibald Avenue, Ontario, California, approximately 1.5 miles north of the Project site. Maintenance activities would include annual repairs and maintenance of existing chain link fencing, gates, signage, and overall site management (transient cleanup and removal as needed). It is expected that these activities would help reduce the potential for law enforcement calls to the site.

Although the potential is low, the presence of workers and equipment associated with maintenance and repair activities may attract vandals or other security risks that would increase demand on law enforcement services. However, the likelihood of requiring such a response is unknown and is not expected to be significant as maintenance activities associated with the maintenance Project would last up to 25 days, on an as needed basis. Furthermore, the Project would not induce an increase in population levels. The maintenance Project would have a less-than-significant impact with respect to disrupting existing police service levels and would not require new or expanded police facilities.

c) Schools?

NO IMPACT. The maintenance Project would not induce an increase in population that could adversely affect local school service levels or require new or expanded school facilities. There would be no impact on schools.

d) Parks?

NO IMPACT. The maintenance Project would not induce an increase in population or physically affect a park facility, resulting in no increased demand for park facilities. There would be no impacts on parks.

e) Other Public Facilities?

NO IMPACT. The maintenance Project would not induce an increase in population and would not affect any public facilities (libraries, post office, community centers, health care facilities, etc.), resulting in no increased demand for such facilities. The proposed Project would not result in impacts on public facilities.

C.15 Recreation

RECREATION

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

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?

NO IMPACT. The maintenance project would not influence the use of existing neighborhood and regional parks or other recreational facilities. The proposed annual routine maintenance activities of the project would include a Bacteria Reduction Pilot Project (NPDES), vector management, and annual maintenance activities, possibly taking place up to four times in a year. The NPDES pilot program would be implemented concurrent with the District's routine maintenance activities. The proposed maintenance activities would require no more than 25 days per occurrence, on an as needed basis. Due to the short-term nature of these proposed activities, the project would not require any relocation of a workforce. There would be no increase in the local population as a result of the project; and similarly, no increase in the use of recreational facilities is expected to occur, nor the substantial physical deterioration of these facilities. No impact would be anticipated under this criterion.

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?

NO IMPACT. The proposed routine maintenance activities of the Project would include a Bacteria Reduction Pilot Project (NPDES), vector management, and maintenance activities. None of the proposed maintenance activities would involve the construction or expansion of recreational facilities. Therefore, there would be no adverse physical effect on the environment under this criterion.

C.16 Transportation/Traffic

TRANSPORTATION AND TRAFFIC

Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. Interstate 15 (I-15), Interstate 10 (I-10), and State Route 60 (SR-60) provide regional access to the Project site area. South Archibald Avenue and Schaefer Avenue provide direct site access and would be used to transport construction workers, equipment, and materials to and from the maintenance Project site, via regional freeways.

Applicable plans, ordinances, and/or policies establishing measures of effectiveness for the performance of the maintenance Project area circulation system are outline below:

- The County of San Bernardino 2007 General Plan Circulation and Infrastructure Element (San Bernardino County, 2007) contains goals and policies pertaining to all modes of transportation, including mass transit and non-motorized travel. However, the goals and policies contained within are not applicable to the maintenance Project as they are directed toward guiding development of transportation facilities and do not contain any significance thresholds or performance standards found as applicable to vehicle trips associated with the maintenance Project.
- The San Bernardino Association of Governments (SANBAG) Congestion Management Program (CMP) defines a network of state highways and arterials, level of service standards and related procedures,

a process for mitigation of the impacts of new development on the transportation system and technical justification for the approach. (SANBAG, 2016). In reviewing the 2016 CMP, no significance thresholds or performance standards for public roadways were identified as applicable to vehicle trips associated with the maintenance Project.

- The City of Ontario, General Plan (City of Ontario, 2017), was reviewed and found to not contain any applicable goals, policies, significance thresholds, or performance standards pertaining to vehicle trips associated with the maintenance Project.

Maintenance and repair activities associated with the maintenance project would not require any temporary closures of public roadways. However, construction workers traveling to the site as well as construction-related truck trips would generate daily traffic volumes to the area. Truck trips associated with hauling debris and other material from the site would be the primary source of daily truck trips. Based on data utilized in the air quality analysis, the following summarizes the maximum daily round trips during routine maintenance and repair activities associated with the maintenance Project:

- Passenger Vehicle Daily Round Trips: 19
- Truck Daily Round Trips: 18

Based on the above, a maximum of 37 daily round trips (74 total daily trips) would occur on public roadways from worker commute and maintenance/repair-related vehicle trips. Because of the minimal number of daily trips and that these trips would be limited to the maintenance and repair period only (25-days, on an as needed basis) they would not significantly impact any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the affected circulation system. Less than significant impacts to the circulation system would occur.

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

LESS THAN SIGNIFICANT IMPACT. I-15, I-10, and SR-60 are identified as congestion management program (CMP) freeways within the San Bernardino County CMP and would likely be utilized by the maintenance Project's maintenance-related vehicles (SANBAG, 2016). For all designated CMP freeways, level of service (LOS) E performance standards must be met for all roadway segments (SANBAG, 2016). As described within the San Bernardino County CMP, LOS E represents operating conditions "at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement" (SANBAG, 2016).

As discussed above in C.16 (a), the Project would generate a maximum of 74 temporary daily trips during the maintenance and repair period (up to 25-days, on an as needed basis). The addition of these temporary trips on I-15, I-10, and SR-60 would not decrease the existing capacity of these CMP freeways. Therefore, the maintenance Project would result in a less than significant impact to I-15, I-10, and SR-60 and is considered consistent with the San Bernardino County CMP.

c. Would the project 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?

NO IMPACT. The nearest civil aviation facility to the maintenance Project site is Ontario International Airport, which is located approximately 3.3 miles north of the maintenance Project site. There are no known private airstrips located within five miles from the maintenance Project site. All maintenance

Project activities would occur at or below ground level, with the Project resulting in no impact to existing air traffic patterns or in a change to air traffic levels that could result in a substantial safety risk.

d. Would the project substantially increase hazards because of a design feature or incompatible uses?

NO IMPACT. As discussed above in C.16 (a), South Archibald Avenue and Schaefer Avenue provide direct site access and would be used to transport construction workers, equipment, and materials to and from the maintenance Project site, via regional freeways. Project-related egress and ingress from the site into public roadways is not anticipated to create any hazards in the area. Furthermore, all site vehicle access points would provide workers with full vision of oncoming traffic and vehicle queuing is not expected to occur at egress/ingress points. All staging areas for vehicles and equipment would occur within the basin's permanent footprint and would not require use of public roadways. Flooding hazards can occur at street segments located proximate to flood basins and washes during major storms. However, the maintenance Project would ensure the maintenance and repair of Chris Basin, so that the facility's flood control performance is to design baseline, decreasing the risk of flooding to adjacent roadways. Therefore, the maintenance Project would result in no impacts to roadway safety and hazards.

e. Would the project result in inadequate emergency access?

NO IMPACT. Project maintenance and repair activities would not require any temporary closures of public roadways or travel lanes that could impact or impede emergency access and the movement of emergency service vehicles. During the temporary maintenance and repair period (up to 25-days, on an as needed basis) access for emergency vehicles into the project site would be available. Therefore, the maintenance Project would result in no impacts pertaining to emergency access and the movement of emergency service vehicles.

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

NO IMPACT. Project maintenance and repair activities would not require any temporary closures of public roadways or travel lanes that could impact public transportation, bicycle, or pedestrian movement. Therefore, the maintenance Project would result in a less than significant impact to the affected circulation system and is considered consistent with adopted policies, plans, or programs supporting public transit, bicycle, and pedestrian facilities.

C.17 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

NO IMPACT There are no known Tribal Cultural Resources (TCRs) that are listed in, or are known to be eligible for listing in, the California Register of Historical Resources (CRHR) or local register of historical resources within the proposed project or the half-mile surrounding area. Additionally, routine maintenance of Chris Basin is not expected to result in ground disturbance beyond the previously disturbed design baseline. Please see information under item (b) for documentation of government-to-government consultation with Tribes under the provisions of Assembly Bill 52 (AB 52).

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED. In accordance with the provisions of AB 52, letters were sent on March 27, 2017 to California Native American tribes who had a general request on file with the CEQA lead agency for notification of projects occurring in the Tribe's geographic area of traditional or cultural affiliation. A response letter was received from the Gabrieleño Band of Mission Indians – Kizh Nation. Government-to-government tribal consultation meetings per AB 52 were requested and completed by mutual agreement with the Gabrieleño Band of Mission Indians – Kizh Nation. Table 17-1 provides a summary of the Native American consultation completed to date. Notification that consultation was complete was made to tribal representatives by email on April 12, 2017.

Table C.17-1. AB 52 Tribal Consultation

Gabrieleño Band of Mission Indians – Kizh Nation	
March 30, 2017	Received letter requesting consultation from Andrew Salas, Chairman.
April 12, 2017	A conference call consultation meeting with a representative from the County and a representative of the Gabrieleño Band of Mission Indians.

As coordinated with the Gabrieleño Band of Mission Indians through the AB 52 process, avoidance and minimization measures shall be incorporated in the unlikely event that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers are discovered during ground disturbance and operations and maintenance activities. Implementation of Mitigation Measures TCR-1, as well as CUL-1 and CUL-3, would reduce potential impacts associated with the disturbance of TCRs to a less-than-significant level.

TCR-1 *Management of Unanticipated Discoveries of Tribal Cultural Resources.* If previously unidentified TCRs are discovered during routine maintenance activities, ground disturbing work within 100 feet of the find shall be halted and directed away from the discovery until a tribal representative authorized by the consulting tribes and a professional cultural resources specialist who meets the Secretary of the Interior’s Professional Qualifications Standards for Archaeology assesses the significance of the resource. Prior to any further action being taken, should the finds be determined eligible to the California Register of Historical Resources or qualify as a unique archaeological resource under CEQA Section 21083.2, the Gabrieleño Band of Mission Indians and lead agency shall consult in order to discuss recommendations for the treatment of the find(s). In addition, if significant Native American historical resources, as defined by CEQA (as amended 2015), are discovered and avoidance cannot be ensured, an archaeologist qualified under the Secretary of the Interior’s Professional Standards for Archaeology shall be retained to develop a cultural resources Treatment Plan, as well as an Archaeological Discovery and Monitoring Plan.

Consultation with the Gabrieleño Band of Mission Indians (GBMI) regarding a discovery, assessment, and treatment plan shall include:

- Contacting the GBMI with information about the discovery;
- Invitation and permission granted to the GBMI to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input;
- Review and comment on cultural resources Treatment Plan, and Cultural Resources Monitoring Plan by the GBMI;
- All in-field investigations, assessment, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a GBMI-appointed Tribal Participant(s); and,

The Lead Agency and/or applicant shall, in good faith, consult with the GBMI on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

C.18 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS

Would 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
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"/>

Significance criteria established by CEQA Guidelines, Appendix G.

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

NO IMPACT. The District proposes to implement a bacteria reduction pilot project (NPDES) to address high bacteria concentrations within the basin. The pilot project would redirect low flows from the center of the basin to along the southeast levee toe, increasing flow duration in the basin and promoting bacteria removal. It is anticipated that one of the water quality benefits of the pilot project would include treatment of dry-weather flows for bacteria/pathogens. Further, reduction in other pollutants of concern is expected through infiltration, plant use and uptake, adsorption, and/or UV destruction. During maintenance/repair associated with the maintenance project (up to 25 days, on an as needed basis), wastewater generation would be limited to District Operations staff and would either be contained within portable toilet facilities or at approved public facilities, both of which would dispose of wastewater with the local treatment provider. Due to the nominal amount of wastewater generated, the proposed project would have no impact with respect to exceeding wastewater treatment requirements.

b. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. As described above, wastewater generation would be limited to construction workers and would be either be contained within portable toilet facilities or at approved public facilities, both of which would dispose of wastewater with the local treatment provider. Maintenance and repair activities would require a water source for dust suppression, and possibly

equipment wash down, soil compaction, and other miscellaneous uses (such as concrete or grout production). Water would be provided by an Inland Empire Utility Agency reclaimed water meters located on Archibald Avenue by Lower Deer Creek Channel and on Chino Avenue by Cucamonga Channel. Therefore, potable water would not be used.

Due to the limited work schedule and the minimal amount of water required, it is reasonably anticipated that sufficient reclaimed water supply is available to serve Project needs. All applicable local, State and federal requirements and best management practices shall be incorporated into maintenance and repair activities associated with the Project. No new or expanded water or wastewater facilities would be required for the maintenance project and less than significant impacts to such facilities would occur.

c. Would the project 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?

LESS THAN SIGNIFICANT IMPACT. The Project is the ongoing maintenance/repair of an existing flood control (stormwater drainage) facility. It is expected that some water utilized during maintenance/repair activities could drain into the on-site drainage routes within the Project site either directly or indirectly. All applicable local, State, and federal requirements regarding stormwater drainage and water quality would be incorporated into the maintenance of the existing basin. The proposed routine maintenance activities are expected to have a less than significant impact with respect to the existing flood control (stormwater drainage) facility and system. The Project is routine maintenance of an existing flood control basin and does not involve or require capacity expansion that could cause significant environmental effects.

d. Would the project have sufficient water supplies available to serve the proposed project from existing entitlements and resources, or would new or expanded entitlements be needed?

LESS THAN SIGNIFICANT IMPACT. As described above under Checklist Question C.18 (b), water needs during maintenance and repair activities would be provided by an Inland Empire Utility Agency reclaimed water meter located directly inside the basin. Therefore, potable water would not be used. As such, sufficient water supplies are available to serve the maintenance Project from existing entitlements and resources and no new or expanded water entitlements would be required, resulting in a less than significant impact.

e. Would the project result in a determination by the wastewater treatment provider that serves or may serve the Proposed Project that it has adequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments?

NO IMPACT. As described above in checklist questions C.18 (a) and (b), wastewater generation would be limited to District Operations Staff and would be either be contained within portable toilet facilities or at approved public facilities, both of which would dispose of wastewater with the local treatment provider. Due to the temporary and short-term nature of the proposed annual maintenance and repair activities, the volume of wastewater generated would not exceed the capacity of wastewater treatment providers serving the Project. No impact would occur.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the proposed project's solid waste disposal needs?

LESS THAN SIGNIFICANT IMPACT. Maintenance/repair activities would generate waste in the form of vegetation, soil spoils, trash and refuse, and aggregate construction materials (cement, rebar, rock, etc.).

Material that is not suitable for reuse will be disposed of at an approved off-site facility. The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the County's solid waste disposal system, which consists of five regional landfills and nine transfer stations. Vegetation and other simple wastes (trash, etc.) would likely be disposed of locally at the Waste Management disposal facility in Chino, located approximately 2.5 miles southwest of the site. Other inert construction-type material wastes would likely be disposed of at the Mid-Valley Sanitary Landfill located at 2390 North Alder Avenue in Rialto, located approximately 16 miles to the east, or other approved construction/demolition waste recycling/disposal facility. Most SWMD landfills are permitted to accept construction and demolition debris and are assumed to have sufficient combined throughput and capacity to accommodate waste generated by the maintenance Project. Because waste generated during maintenance and repair activities of the maintenance Project would be limited, any impacts to these landfills are less than significant.

g. Would the project comply with federal, State, and local statutes and regulations related to solid waste?

LESS THAN SIGNIFICANT IMPACT. The maintenance Project would generate solid waste during maintenance and repair activities of the Project, thus requiring the consideration of waste reduction and recycling measures. The 1989 California Integrated Waste Management Act (AB 939) requires San Bernardino County to attain specific waste diversion goals. In addition, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development projects to incorporate storage areas for recycling bins into the maintenance Project design. The maintenance Project would reuse and recycle material to the extent feasible. Furthermore, the majority of waste generated by Project implementation would consist of vegetation, soil spoils, and aggregate construction materials. Therefore, the maintenance Project is consistent with AB 939 and the California Solid Waste Reuse and Recycling Access Act of 1991, resulting in less than significant impacts with respect to compliance with these applicable regulations.

C.19 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE

	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 fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (<i>Cumulatively considerable</i> 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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

- 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, threaten to 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?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. As described in Section C.4 (Biological Resources), the maintenance Project could result in impacts to habitats that support sensitive species, riparian habitats, and wetlands. However, implementation of mitigation and minimization measures would reduce these impacts to a less-than-significant level.

Section C.5 (Cultural Resources) shows the maintenance Project would not have any direct or indirect (visual, noise/vibration, dust) impacts on any significant archaeological resources. Project activities at the Chris Basin would be temporary, therefore the Project would not result in impacts to the setting of a historical resource that would cause a substantial change in significance. Nonetheless, implementation of mitigation measures would reduce this impact to a less-than-significant level.

As described in Section C.17 (Tribal Cultural Resources), there are no known Tribal Cultural Resources (TCRs) that are listed in, or are known to be eligible for listing in, the California Register of Historical Resources (CRHR) or local register of historical resources within the maintenance Project or the half-mile surrounding area. However, it is possible that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers could be discovered and damaged, or destroyed, during Project construction and ground disturbance, which would constitute a significant impact absent mitigation. Implementation of Mitigation Measures would reduce impacts associated with the disturbance of TCRs to a less-than-significant level.

Mitigation Measures

- BIO-1** *Assign Project Biologist.* The San Bernardino County Flood Control District (District) will assign a qualified biologist to conduct pre-maintenance surveys, maintenance monitoring, and related tasks listed below. A "qualified biologist" is defined as a person with appropriate education, training, and experience to conduct such surveys and monitor project activities. The Project Biologist will be responsible for providing worker education programs and monitoring project activities. The Project Biologist will be authorized by the District to temporarily halt project activities if needed to prevent take of listed species or harm to any other special-status species.
- BIO-2** *Pre-maintenance clearance survey.* Prior to the start of any project activities that would disturb soils or vegetation, the Project Biologist will survey the work area to determine if burrowing owls, nesting birds, coastal whiptail, or any other special-status species are present. Any special-status species shall be flagged and avoided as feasible.
- BIO-3** *Nesting birds.* Project activities that would disturb soil or vegetation will be completed outside the breeding season (i.e., no removal of potential nesting habitat from February 1 through August 31), or after a pre-maintenance nesting bird survey has been completed. The Project Biologist will determine if birds are nesting in or adjacent to areas to be disturbed. If native birds are nesting on the site, then maintenance will be postponed until nesting is completed or the Project Biologist will designate appropriate avoidance buffers around nests to protect nesting birds. No project related disturbance will be allowed within these buffers. The Project Biologist will remove the buffers and allow project activities to continue once the nestlings have fledged or once the nest is no longer active.
- BIO-4** *Burrowing owl.* The Project Biologist will survey the site in advance of all project activities to determine burrowing owl presence or absence. If burrowing owls are present on the site outside of the nesting season (September 1 to January 31) and maintenance activities are planned at the same location as the occupied burrow, then the California Department of Fish and Wildlife (CDFW) will be consulted and the Project Biologist may be authorized to exclude them from the site using passive exclusion methods described in the most recent CDFW staff report on burrowing owl mitigation (CDFG, 2012). If burrowing owls are present on the site during nesting season (February 1 through August 31), then project activities will either be postponed until nesting is completed, or the Project Biologist will monitor activities in the vicinity of the burrowing owl and will establish a buffer as needed to avoid direct impacts to the burrowing owls or occupied burrows.
- BIO-5** *Biological Monitoring.* The Project Biologist will be present on the work site during all initial ground disturbance or vegetation clearing activities that are conducted during the nesting bird season (February 1 to August 31) to document compliance with the avoidance and minimization measures and any additional mitigation, and to provide guidance in avoiding or minimizing impacts to biological resources. Once initial ground disturbance and clearing is completed the Project Biologist should return on at least a weekly basis to ensure birds and other special-status species are being avoided and to inspect all the special-status species and evaluate the buffer distance.
- BIO-6** *Required Permits.* The San Bernardino County Flood Control District will obtain all required permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and

California Department of Fish and Wildlife for impacts to jurisdictional waters of the state, federal wetlands, and non-wetland waters of the U.S.

- CUL-1 Management of Unanticipated Historical Resources or Unique Archaeological Resources.* If previously unidentified cultural resources are identified during ground-disturbing activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist or tribal representative assesses the significance of the resource. The archaeologist, in consultation with the San Bernardino County Flood Control District, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers or qualify as a unique archaeological resource under CEQA Section 21083.2.
- CUL-2 Incidental Discovery of Paleontological or Geological Resources.* If any unanticipated paleontological resources or unique geological resources are encountered during any ground-disturbing activities, work should be halted in the immediate vicinity of the find until the specimen(s) can be recovered, examined, identified, and recorded by a qualified paleontologist, and, if determined necessary, be prepared for permanent curation at an accredited museum repository.
- CUL-3 Management of Unanticipated Human Remains.* All human remains discovered are to be treated with respect and dignity. In the event that human remains or potential human remains are discovered, ground-disturbing activities within the immediate area of the find shall be immediately halted. The Project Manager shall immediately notify the San Bernardino County Flood Control District Project Manager and the County Coroner. The County Coroner will make a determination as to the origin of the remains and, if determined to be of Native American origin, the Native American Heritage Commission (NAHC) will be contacted. In consultation with the Most Likely Descendant, the NAHC and qualified archaeologist shall determine the disposition of the remains in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e). If the remains are not of Native American origin, the County Coroner will make a determination as to the disposition of the remains. Ground-disturbing activities may continue once compliance with all relevant sections of the California Health and Safety Code have been addressed and authorization to proceed issued by the County Coroner and the San Bernardino County Flood Control District.
- TCR-1 Management of Unanticipated Discoveries of Tribal Cultural Resources.* If previously unidentified TCRs are discovered during routine maintenance activities, ground disturbing work within 100 feet of the find shall be halted and directed away from the discovery until a tribal representative authorized by the consulting tribes and a professional cultural resources specialist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology assesses the significance of the resource. Prior to any further action being taken, should the finds be determined eligible to the California Register of Historical Resources or qualify as a unique archaeological resource under CEQA Section 21083.2, the Gabrieleño Band of Mission Indians and lead agency shall consult in order to discuss recommendations for the treatment of the find(s). In addition, if significant Native American historical resources, as defined by CEQA (as amended 2015), are discovered and avoidance cannot be ensured, an archaeologist qualified under the Secretary of the

Interior's Professional Standards for Archaeology shall be retained to develop a cultural resources Treatment Plan, as well as an Archaeological Discovery and Monitoring Plan.

Consultation with the Gabrieleño Band of Mission Indians (GBMI) regarding a discovery, assessment, and treatment plan shall include:

- Contacting the GBMI with information about the discovery;
- Invitation and permission granted to the GBMI to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input;
- Review and comment on cultural resources Treatment Plan, and Cultural Resources Monitoring Plan by the GBMI;
- All in-field investigations, assessment, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a GBMI-appointed Tribal Participant(s); and,

The Lead Agency and/or applicant shall, in good faith, consult with the GBMI on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

- 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, effects of other current projects, and the effects of probable future projects.)***

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. CEQA defines a cumulative impact as an effect that is created as a result of the combination of the maintenance Project together with other projects (past, present, or future) causing related impacts. Cumulative impacts of a project need to be evaluated when the project's incremental effect is cumulatively considerable and, therefore, potentially significant.

As discussed in preceding Sections C.1 (Aesthetics) through C.17 (Utilities and Service Systems), many of the potential operational impacts of the maintenance Project would occur only temporarily. Because the operation-related impacts of the maintenance Project would be temporary and localized, they would only have the potential to combine with similar impacts of other projects if they occur at the same time and in close proximity. Impacts caused by the maintenance Project (primarily related to biological resources, cultural resources) could combine with similar effects of other projects being built in the area. However, impacts would be less than significant.

Mitigation Measures

- BIO-1** *Assign Project Biologist.* The San Bernardino County Flood Control District (District) will assign a qualified biologist to conduct pre-maintenance surveys, maintenance monitoring, and related tasks listed below. A "qualified biologist" is defined as a person with appropriate education, training, and experience to conduct such surveys and monitor project activities. The Project Biologist will be responsible for providing worker education programs and monitoring project activities. The Project Biologist will be authorized by the District to temporarily halt project activities if needed to prevent take of listed species or harm to any other special-status species.

- BIO-2** *Pre-maintenance clearance survey.* Prior to the start of any project activities that would disturb soils or vegetation, the Project Biologist will survey the work area to determine if burrowing owls, nesting birds, coastal whiptail, or any other special-status species are present. Any special-status species shall be flagged and avoided as feasible.
- BIO-3** *Nesting birds.* Project activities that would disturb soil or vegetation will be completed outside the breeding season (i.e., no removal of potential nesting habitat from February 1 through August 31), or after a pre-maintenance nesting bird survey has been completed. The Project Biologist will determine if birds are nesting in or adjacent to areas to be disturbed. If native birds are nesting on the site, then maintenance will be postponed until nesting is completed or the Project Biologist will designate appropriate avoidance buffers around nests to protect nesting birds. No project related disturbance will be allowed within these buffers. The Project Biologist will remove the buffers and allow project activities to continue once the nestlings have fledged or once the nest is no longer active.
- BIO-4** *Burrowing owl.* The Project Biologist will survey the site in advance of all project activities to determine burrowing owl presence or absence. If burrowing owls are present on the site outside of the nesting season (September 1 to January 31) and maintenance activities are planned at the same location as the occupied burrow, then the California Department of Fish and Wildlife (CDFW) will be consulted and the Project Biologist may be authorized to exclude them from the site using passive exclusion methods described in the most recent CDFW staff report on burrowing owl mitigation (CDFG, 2012). If burrowing owls are present on the site during nesting season (February 1 through August 31), then project activities will either be postponed until nesting is completed, or the Project Biologist will monitor activities in the vicinity of the burrowing owl and will establish a buffer as needed to avoid direct impacts to the burrowing owls or occupied burrows.
- BIO-5** *Biological Monitoring.* The Project Biologist will be present on the work site during all initial ground disturbance or vegetation clearing activities that are conducted during the nesting bird season (February 1 to August 31) to document compliance with the avoidance and minimization measures and any additional mitigation, and to provide guidance in avoiding or minimizing impacts to biological resources. Once initial ground disturbance and clearing is completed the Project Biologist should return on at least a weekly basis to ensure birds and other special-status species are being avoided and to inspect all the special-status species and evaluate the buffer distance.
- BIO-6** *Required Permits.* The San Bernardino County Flood Control District will obtain all required permits from the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife for impacts to jurisdictional waters of the state, federal wetlands, and non-wetland waters of the U.S.
- CUL-1** *Management of Unanticipated Historical Resources or Unique Archaeological Resources.* If previously unidentified cultural resources are identified during ground-disturbing activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist or tribal representative assesses the significance of the resource. The archaeologist, in consultation with the San Bernardino County Flood Control District, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or

California Registers or qualify as a unique archaeological resource under CEQA Section 21083.2.

CUL-2 *Incidental Discovery of Paleontological or Geological Resources.* If any unanticipated paleontological resources or unique geological resources are encountered during any ground-disturbing activities, work should be halted in the immediate vicinity of the find until the specimen(s) can be recovered, examined, identified, and recorded by a qualified paleontologist, and, if determined necessary, be prepared for permanent curation at an accredited museum repository.

CUL-3 *Management of Unanticipated Human Remains.* All human remains discovered are to be treated with respect and dignity. In the event that human remains or potential human remains are discovered, ground-disturbing activities within the immediate area of the find shall be immediately halted. The Project Manager shall immediately notify the San Bernardino County Flood Control District Project Manager and the County Coroner. The County Coroner will make a determination as to the origin of the remains and, if determined to be of Native American origin, the Native American Heritage Commission (NAHC) will be contacted. In consultation with the Most Likely Descendant, the NAHC and qualified archeologist shall determine the disposition of the remains in accordance with California Health and Safety Code §7050.5 and CEQA Guidelines §15064.5(e). If the remains are not of Native American origin, the County Coroner will make a determination as to the disposition of the remains. Ground-disturbing activities may continue once compliance with all relevant sections of the California Health and Safety Code have been addressed and authorization to proceed issued by the County Coroner and the San Bernardino County Flood Control District.

TCR-1 *Management of Unanticipated Discoveries of Tribal Cultural Resources.* If previously unidentified TCRs are discovered during routine maintenance activities, ground disturbing work within 100 feet of the find shall be halted and directed away from the discovery until a tribal representative authorized by the consulting tribes and a professional cultural resources specialist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology assesses the significance of the resource. Prior to any further action being taken, should the finds be determined eligible to the California Register of Historical Resources or qualify as a unique archaeological resource under CEQA Section 21083.2, the Gabrieleño Band of Mission Indians and lead agency shall consult in order to discuss recommendations for the treatment of the find(s). In addition, if significant Native American historical resources, as defined by CEQA (as amended 2015), are discovered and avoidance cannot be ensured, an archaeologist qualified under the Secretary of the Interior's Professional Standards for Archaeology shall be retained to develop a cultural resources Treatment Plan, as well as an Archaeological Discovery and Monitoring Plan.

Consultation with the Gabrieleño Band of Mission Indians (GBMI) regarding a discovery, assessment, and treatment plan shall include:

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- Invitation and permission granted to the GBMI to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input;
- Review and comment on cultural resources Treatment Plan, and Cultural Resources Monitoring Plan by the GBMI;

- All in-field investigations, assessment, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a GBMI-appointed Tribal Participant(s); and,

The Lead Agency and/or applicant shall, in good faith, consult with the GBMI on the disposition and treatment of any artifacts or other cultural materials encountered during the project.

c. Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?

LESS THAN SIGNIFICANT. The preceding sections of this IS/MND discuss various types of impacts that could have adverse effects on human beings, including:

- Dust and air pollutants emitted during project activities (see Section C.3, Air Quality);
- Hazardous emissions or materials within one-quarter mile of an existing school, and potential interferences with emergency response or evacuation routes (see Section C.8, Hazards and Hazardous Materials);
- Water quality standards, waste discharge requirements, and erosion control (see Section C.9, Hydrology and Water Quality);
- Noise and vibration generated by operation (see Section C.12, Noise); and
- Traffic and emergency access related to operation activities (see C.16, Transportation and Traffic).

These are primarily temporary impacts. Each type of impact with the potential to cause substantial adverse effects on human beings has been evaluated, and this IS/MND concludes that impacts are less than significant.

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Appendix A

Air Quality Data

Chris Basin Routine Maintenance Project

Emission Calculation Assumptions

General Assumptions

- 1) Work occurs 5 days a week, 8 hours a day.
- 2) The maintenance actions consist of Routine Maintenance (that includes vegetation management), vector management, and NPDES Bacteria Reduction Pilot Project. All of these actions could overlap at any given time. The heavy equipment work that may be needed for the NPDES Bacteria Reduction Pilot Project, if done concurrently or in concert with other routine maintenance actions would share the assumed heavy equipment. This is an ongoing project so emissions thresholds are conservatively based on SCAQMD operations thresholds.

Onroad Equipment Emission Calculations Assumptions

- 1) CARB EMFAC model emission factors from EMFAC2014 for the South Coast Air Basin were derived for three vehicle classes they list (passenger, delivery, and heavy-heavy duty truck)
- 2) Worker trip and heavy haul trip estimates are based on San Bernardino County Flood Control District estimates of personnel needs and bulk material import and waste export quantities for a worst-case Routine Maintenance event, with extra medium size truck and work trips assumed for the other smaller maintenance actions.
- 3) Trip distances conservatively assume all trip types require a round trip distance of 30 miles.

Offroad Equipment Emission Calculation Assumptions

- 1) Off-road vehicle emissions factors are fleet average values for 2017 based on the output of the latest CARB OFFROAD model, with the exception of CO emissions which are derived from the older OFFROAD model emissions factors presented in the SCAQMD offroad emissions factor spreadsheet.

Fugitive Dust Emission Calculations Assumptions

- 1) Fugitive dust emissions are estimated using USEPA AP-42, CARB emissions inventory calculations, and the SCAQMD CEQA Handbook assumptions.
- 2) Unpaved distances are minimal for this project and only include access/egress from the site. Water truck is assumed to have negligible unpaved road dust emissions due to self mitigation and very slow operating speed.
- 3) Total worst-case disturbed area available for wind erosion is assumed to be 5 acres at any given time.

Greenhouse Gas Emission Calculations Assumptions

- 1) GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol
- 2) For diesel-fueled offroad equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
- 3) For vehicles the gasoline and diesel consumption rates are based on the fleet average fuel efficiency given by EMFAC.

Localized Significance Threshold (LST) Evaluation

- 1) The site is in SCAQMD defined Source Receptor Area (SRA) 33. The site is approximately 8 acres in size but the daily working area is assumed to be five acres. The nearest sensitive receptor to the site is approximately 160 meters to the southwest. So, the SCAQMD LST tables for a 5 acre site interpolated between 100 and 200 meters (rounded down to the nearest lb/day integer value) was used in the LST impact analysis.
- 2) For the LST analysis all off-road equipment emissions, and related fugitive dust emissions are assumed to be on-site. Non-related fugitive dust emissions are paved road dust and one half of the material handling emissions that occur at the sediment disposal location.

Chris Basin Routine Maintenance Project

Emissions Summary

Maximum Daily Emissions (lbs/day)

	VOC	CO	NOx	SOx	PM10	PM2.5
Onroad Vehicles	0.54	3.67	7.30	0.02	0.24	0.13
Offroad Equipment	2.38	17.85	33.13	0.03	1.35	1.24
Fugitive Dust	---	---	---	---	15.83	4.52
Total	2.92	21.53	40.43	0.06	17.42	5.90
SCAQMD Significance Thresholds	55	550	55	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Total GHG Emissions (tons/year)

	CO2	N2O	CH4	CO2e
Onroad Vehicles	1.29	0.00	0.00	1.29
Offroad Equipment	1.91	0.00	0.00	1.92
Total Daily	3.20	0.00	0.00	3.22
Annual = 20 times maximum daily per event x three annual events				193.08
SCAQMD Significance Threshold				11,023
Exceeds Thresholds?				No

Maximum Daily LST Emissions (lbs/day)

	CO	NOx	PM10	PM2.5
Onroad Vehicles	0.07	0.15	0.00	0.00
Offroad Equipment	17.85	33.13	1.35	1.24
Fugitive Dust	---	---	13.65	4.01
Total	17.93	33.28	15.00	5.25
SCAQMD Significance Thresholds	7,841	442	28	8
Exceeds Thresholds?	No	No	No	No

Chris Basin Routine Maintenance Project
Onroad Equipment Use

#	Task Name	Vehicle Type	Total VMT/Trip	Unpaved VMT/Trip	Trips/Day	Total	Unpaved	Paved
						VMT/Day	VMT/Day	VMT/Day
1	Routine Maintenance	Passenger	30	0	9	270	0.00	270.00
		Heavy Truck	30	0.025	15	450	0.38	449.63
2	Vector Management	Passenger	30	0	4	120	0.00	120.00
		Delivery	30	0.025	1	30	0.00	0.00
3	NPDES Bacteria Control Pilot Project	Passenger	30	0	4	120	0.00	120.00
		Delivery	30	0.025	1	30	0.03	29.98
	Daily Needs	Passenger	30	0	2	60	0.00	60.00
		Delivery	30	0.025	1	30	0.03	29.98

Chris Basin Routine Maintenance Project
Offroad Equipment Use

#	Task Name	Offroad Equipment	HP	Model	Quantity	Hr/day
1 & 3	Routine Maintenance and NPDES Bacteria Control Pilot Project	Dozer	312	D8	1	8
		Loader	153	926	1	8
		Excavator	161	320F	1	8
		Water Truck	320	725C	1	8
		Tractor w/disc	100	5100R	1	4
2	Vector Management	None				

Chris Basin Routine Maintenance Project

On-road Vehicle Emissions Calculations

Onroad Emission Factors - 2017 (pounds/mile)

	VOC	CO	NOx	SOx	PM10	PM2.5
Passenger Vehicle	0.00050	0.00408	0.00049	0.00001	0.00011	0.00005
Delivery Vehicle	0.00060	0.00471	0.00795	0.00002	0.00053	0.00033
Heavy Duty Truck	0.00044	0.00206	0.01400	0.00004	0.00030	0.00016

Onroad Emissions (lbs/day)

#	Task Name	Vehicle Type	Daily VMT	Daily Emissions					
				VOC	CO	NOx	SOx	PM10	PM2.5
1	Routine Maintenance	Passenger	270	0.135	1.101	0.133	0.002	0.029	0.012
		Heavy Truck	450	0.198	0.926	6.300	0.017	0.136	0.073
		Total		0.333	2.027	6.433	0.019	0.165	0.086

#	Task Name	Vehicle Type	Daily VMT	Daily Emissions					
				VOC	CO	NOx	SOx	PM10	PM2.5
2	Vegetation Management	Passenger	120	0.060	0.489	0.059	0.001	0.013	0.006
		Delivery	30	0.018	0.141	0.238	0.001	0.016	0.010
		Total		0.078	0.631	0.298	0.002	0.029	0.015

#	Task Name	Vehicle Type	Daily VMT	Daily Emissions					
				VOC	CO	NOx	SOx	PM10	PM2.5
3	Vector Management	Passenger	120	0.060	0.489	0.059	0.001	0.013	0.006
		Delivery	30	0.018	0.141	0.238	0.001	0.016	0.010
		Total		0.078	0.631	0.298	0.002	0.029	0.015

#	Task Name	Vehicle Type	Daily VMT	Daily Emissions					
				VOC	CO	NOx	SOx	PM10	PM2.5
na	Daily Needs	Passenger	60	0.030	0.245	0.030	0.001	0.006	0.003
		Delivery	30	0.018	0.141	0.238	0.001	0.016	0.010
		Total		0.048	0.386	0.268	0.001	0.022	0.013

Maximum Daily Emissions Totals

ROG	CO	NOx	SOx	PM	PM2.5
0.54	3.67	7.30	0.02	0.24	0.13

Chris Basin Routine Maintenance Project
Off-Road Emissions Calculations

2017 SCAB Fleet Average Emissions Factors

Item	Hp	ROG	CO	NOx	SOx	PM
Dozer	312	0.1022	0.4699	1.6067	0.0015	0.0574
Loader	153	0.0565	0.5450	0.6825	0.0006	0.0353
Excavator	161	0.0396	0.6112	0.5287	0.0007	0.0247
Water Truck	320	0.0816	0.4619	1.1217	0.0013	0.0367
Tractor w/disc	100	0.0350	0.2868	0.4033	0.0004	0.0294

Off-Road Emissions (lbs/day)

#	Task Name	Offroad Equipment	HP	Number	Hours/day	Daily Emissions lbs				
						ROG	CO	NOx	SOx	PM
1 & 3	Routine Maintenance and NPDES Bacteria Control Pilot Project	Dozer	312	1	8	0.82	3.76	12.85	0.01	0.46
		Loader	153	1	8	0.45	4.36	5.46	0.00	0.28
		Excavator	161	1	8	0.32	4.89	4.23	0.01	0.20
		Water Truck	320	1	8	0.65	3.70	8.97	0.01	0.29
		Tractor w/disc	100	1	4	0.14	1.15	1.61	0.00	0.12
					Totals	2.38	17.85	33.13	0.03	1.35

Chris Basin Routine Maintenance Project

Fugitive Dust Emission Calculations

Assumptions:

1. Fugitive dust emissions are estimated using AP-42 and CARB emissions factor sources.
2. VMT and off-road equipment use assumptions are presented on pages A-3 and A-4, respectively.
3. Mitigation level assumes minimum mitigation required for SCAQMD Rule 403 compliance.

Emission Categories

- 1) Earthmoving
- 2) Road Dust Paved/Unpaved
- 3) Disturbed Area Windblown Emissions

1) Earthmoving

Emission Types

- A) Dozing
- B) Discing
- C) Material Loading/Handling

A) Dozing (AP-42 Section 11.9 for overburden)

$$E = k \times (s)^{1.5} / (M)^{1.4} \text{ For PM}_{10} \text{ and } k \times 5.7 \times (s)^{1.2} / (M)^{1.3} \text{ for PM}_{2.5}$$

E = lb/hr

k = Scaling Constant (0.75 for PM₁₀ and 0.105 for PM_{2.5})

s = Silt Content (assumed to be 8.9% default)

M = Moisture Content = 12% (Rule 403 watering)

Emission Factor, lb/hr

PM ₁₀	PM _{2.5}
0.61418	0.32613

Maximum Daily Dozer Use

Hrs/day
8

Dozer Emissions (Lbs/day)

	PM ₁₀	PM _{2.5}
Max Case	4.91	2.61

B) Discing (CARB Emission Inventory Section 7.4 - Agricultural Land Preparation)

Assumptions

1. Emission Factor for PM₁₀ is 1.2 lb/acre pass. PM_{2.5} fraction of PM₁₀ is 0.15.
2. Worst-case day assumes a total of 2.5 acres disc'd with two passes.

Emission Factor, lb/acre-pass

PM ₁₀	PM _{2.5}
1.20	0.18

Emissions

PM ₁₀	PM _{2.5}
6.00	0.90

B) Material Loading/Handling (AP-42, p. 13.2.4.3)

Assumptions:

1. This emission source covers the excavation/handling of the removed basin sediment with weight of 1.35 tons/cy
2. The worst case daily throughput is assumed to be 180 cu yds of wet soil total with two drops.

$$E = (k)(0.0032)[(U/5)^{-1.3}][((M/2)^{1.4})]$$

E = lb/ton

k = Particle Size Constant (0.35 for PM₁₀ and 0.053 for PM_{2.5})

U = average wind speed = 25 MPH worst day

M = moisture content = 12% (Rule 403 watering)

	tons/period
Max Case	486

Emission Factors and Emissions

Emission Factors

PM ₁₀ Daily	PM _{2.5} Daily
0.00074	0.00011

Emissions (Lbs/day)

	PM ₁₀	PM _{2.5}
Max Case	0.36	0.05

Chris Basin Routine Maintenance Project

Fugitive Dust Emission Calculations

2) Road Dust

Emission Types

- A) Paved Road Dust
- B) Unpaved Road Dust

A) Paved Road Dust

$$E = [k \times (sL)^{0.91} \times (W)^{1.02}]$$

E = lb/VMT

k = Constant (0.0022 for PM10 and 0.00054 for PM2.5)

sL = Silt Loading (assumed to be 0.06 g/m² for ADT between 5,000 and 10,000 from Table 13.2.1-2)

W = Average weight of vehicles in tons (calculated below)

Average Vehicle Weight Calculation

Assumptions

Passenger Vehicles = 2 tons average

Midsized "Delivery" Vehicles = 12 ton average

Heavy-Heavy Duty Trucks = 20 tons average (loaded 30 tons, unloaded 10 tons)

Daily Case VMT	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Paved VMT	Average Weight (Tons)
2017 Max Case	570	90	450	1,110	10.1

Daily Emission Factors (lb/VMT)

	PM10 Daily	PM2.5 Daily
2017 Max Case	0.00180	0.00044

Emissions (Lbs/day)

	PM10	PM2.5
2017 Max Case	2.00	0.49

B) Unpaved Road Dust

$$E = (k)[(s/12)^{0.9}][[(W/3)^{0.45}][[(365-P)/365]]$$

k = constant = 1.5 lb/VMT for PM10 and 0.15 lb/VMT for PM2.5

s = Silt Content (assumed to be 12%, SCAQMD 1993 Handbook value for mountain roads)

W = avg. vehicle weight = calculated below

P = Days of precipitation (40 assumed for annual calculation)

No correction for number of wet days due to assumption of working in dry season

Average Vehicle Weight Calculation

Assumptions:

Passenger Vehicles = 2 tons average

Midsized "Delivery" Vehicles = 12 ton average

Heavy-Heavy Duty Trucks = 20 tons average (loaded 30 tons, unloaded 10 tons)

Daily Case VMT	Passenger Vehicles	Delivery/Work Vehicles	Heavy-Heavy Duty Vehicles	Total Unpaved VMT	Average Weight (Tons)
2017 Max Case	0.00	0.05	0.38	0.43	19.1

Uncontrolled Emission Factors and Emissions

Daily Emission Factors (lb/VMT)

	PM10 Daily	PM2.5 Daily
2017 Max Case	3.45	0.34

Emissions (Lbs/day)

	PM10	PM2.5
2017 Max Case	1.46	0.15

Controlled Emissions (assumes 61% with Rule 403 watering)

Emissions (Lbs/day)

	PM10	PM2.5
2017 Max Case	0.57	0.06

3) Disturbed Area Windblown Emissions

Assumptions

1. Emission Factor is 0.38 tons/disturbed acres/year of Total Suspended Particulate (AP-42 Section 11.9).
2. PM10 and PM2.5 fractions of TSP are 0.489 and 0.102 respectively per CEIDARS factors from SCAQMD CEQA Website.
3. The daily maximum disturbed area is 5 acres.
4. Disturbed areas are controlled by water dust suppression of 61% control.
5. Restoration of disturbed acres creates no net emission increase of permanently disturbed acres

Disturbed Acres (acre-years)	Emissions (Lbs/day)	
	PM10	PM2.5
5.0	1.99	0.41

Maximum Daily

	Overall Maximum		LST Maximum	
	PM10	PM2.5	PM10	PM2.5
Dozing	4.91	2.61	4.91	2.61
Discing	6.00	0.90	6.00	0.90
Material Loading/Handling	0.36	0.05	0.18	0.03
Paved Road Dust	2.00	0.49	0.00	0.00
Unpaved Road Dust	0.57	0.06	0.57	0.06
Disturbed Area Windblown Emissions	1.99	0.41	1.99	0.41
Total	15.83	4.52	13.65	4.01

Chris Basin Routine Maintenance Project

GHG Emissions Calculations

Onroad Vehicles GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013) and April 2015 updated emissions factors

EMFAC 2014 Fuel Consumption Rate in South Coast Air Basin in 2017 (gallon/mile)

Passenger	Gasoline	0.047319
Delivery	Diesel	0.120524
Heavy-Heavy Duty	Diesel	0.179449

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2
Motor Gasoline	8.78
Diesel	10.21

TCR Table 13.5 Emission Factors for Each Fuel and Vehicle Type (g/mile)

		CH4	N2O
Passenger	Gasoline	0.0168	0.0051
Delivery	Diesel	0.0010	0.0015
Heavy-Heavy Duty	Diesel	0.0051	0.0048

Onroad Emission Factors - 2014 (pounds/mile)

	CO2	CH4	N2O
Passenger	0.91594	0.00004	0.00001
Delivery	2.71289	0.00001	0.00001
Heavy-Heavy Duty	4.03925	0.00001	0.00001

Total On-road GHG Emissions

	VMT	Total Emissions (tons)			
Vehicle Type	Total	CO2	CH4	N2O	CO2e
Passenger	570	0.26	0.00	0.00	0.26
Delivery	90	0.12	0.00	0.00	0.12
Heavy-Heavy Duty	450	0.91	0.00	0.00	0.91
Totals		1.29	0.00	0.00	1.29

Chris Basin Routine Maintenance Project

GHG Emissions Calculations

Offroad Equipment GHG Emission Calculations

Assumptions:

1. GHG emissions are estimated based on guideline and emission factors provided by The Climate Registry General Reporting Protocol (ver. 2.0 March 2013) and April 2015 updated emissions factors and GWP from IPCC AR5.
2. For diesel-fueled equipment, fuel consumption rate of 0.38 lbs/bhp-hr and density of 6.8 lbs/gallon are used.
3. For gasoline-fueled equipment, fuel consumption rate of 0.47 lbs/bhp-hr and density of 6.0 lbs/gallon are used.

TCR Table 13.1 Carbon Dioxide Emission Factors for Transport Fuels (kg CO2/gallon)

	CO2 (kg/gallon)
Diesel	10.21

TCR Table 13.7 Methane and Nitrous Oxide Emission Factors for Non-Highway Vehicles

	CH4 (g/gallon)	N2O (g/gallon)
Diesel	0.58	0.26

Total Offroad GHG Emissions

	Fuel Use (gallon)	Total Emissions (tons)			
		CO2	CH4	N2O	CO2e
Diesel	170	1.91	0.00	0.00	1.92

Appendix B

AB52 Consultation Results

1	Cotton Ave & Oliver's Highway	1124900	San Manuel Band of Mission Indians	4/4/2017	3/2/2017	USPS - Certified	7012 3460 0003 1596 4115	3/2/2017	4/4/2017	Yes	04.12.17	
8	Wineville Basin Routine Maintenance	F00001	Gabrieleño Band of Mission Indians - Kizh Nation	3/27/2017	3/27/2017	USPS - Certified	7012 3460 0003 1596 4175	3/29/2017	4/28/2017	Yes	04.12.17	
9	Wineville Basin Routine Maintenance	F00001	Soboba Band of Luiseno Indians	3/27/2017	3/27/2017	USPS - Certified	7012 3460 0003 1596 4168	3/29/2017		No Resp.	N/A	
10	Wineville Basin Routine Maintenance	F00001	San Manuel Band of Mission Indians	3/27/2017	3/27/2017	USPS - Certified	7009 2820 0002 0403 7680	3/28/2017		No Resp.	N/A	
11	Chris Basin Routine Maintenance	F00001	Soboba Band of Luiseno Indians	3/27/2017	3/27/2017	USPS - Certified	7009 2820 0002 0403 7802	3/29/2017		No Resp.	N/A	
12	Chris Basin Routine Maintenance	F00001	Gabrieleño Band of Mission Indians - Kizh Nation	3/27/2017	3/27/2017	USPS - Certified	7009 2820 0002 0403 7796	3/29/2017		Yes	04.12.17	
13	Cajon Creek Preservation	F02209	San Manuel Band of Mission Indians	6/13/2017	6/13/2017	USPS - Certified	7012 3460 0003 1596 4250	6/19/2017		Yes		Leave
14	Cajon Creek Routine Maintenance	F00001	San Manuel Band of Mission Indians	6/13/2017	6/13/2017	USPS - Certified	7012 3460 0003 1596 4250			Yes	04.12.17	Leave



AB 52 CONSULTATION MEETING RESULTS

ATTENDEES

Gabrieleno Band of Mission Indians - Kizh Nation

Andrew Salas

Matthew Teutimez

San Bernardino County Department of Public Works and San Bernardino County Flood Control District

Nancy Sansonetti – Tribal Liaison

Mindy Davis

Patrick Egle

Chris Hale

April 12, 2017

3:00 – 4:00 p.m.

Agenda Item	Project	Staff
1	Introductions	Nancy Sansonetti
2	Santa Ana River Stockpile Removal: Confirmed – no native material to be excavated or disturbed. Stockpile contains sediment, debris and trash removed from flowpath. Tribe has no concerns, consultation closed.	Mindy Davis
3	Wineville Basin Maintenance: Confirmed – no native material beyond original basin design depth to be excavated. Tribe has no concerns, consultation closed.	Mindy Davis
4	Crafton Avenue (and others) Road Resurfacing: Confirmed – area designated as ‘Full Depth Reconstruction’ will result in disturbance below existing roadway. Tribe is satisfied with the portions of the project where no native soils would be disturbed and will provide County with a letter outlining the specific tribal concerns with the portion of the project that may result in disturbance of soils under the existing roadbed as well as recommended mitigation actions.	Patrick Egle
5	Chris Basin Maintenance: Confirmed – no native material beyond original basin design depth to be excavated. Tribe has no concerns, consultation closed.	Mindy Davis