CEQA Initial Study

Cactus Basins Recharge Project

July 2022

Prepared by:

San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
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300 North Lake Avenue, Suite 400
Pasadena, California 91101

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Section 1
Project and Agency Information

1.1 PROJECT TITLE AND LEAD AGENCY

Project Title:	Cactus Basins Recharge Project
Lead Agency Name:	San Bernardino Valley Municipal Water District
Lead Agency Address:	380 East Vanderbilt Way San Bernardino, California 92408
Contact Person:	Mr. Chris Jones
Contact Phone Number:	(909) 387-9255
Project Sponsor:	Same as lead agency

1.2 PROJECT BACKGROUND AND OBJECTIVE

The San Bernardino Valley Municipal Water District (SBVMWD, Valley District) is the lead agency under the California Environmental Quality Act (CEQA) and has prepared this Initial Study (IS) to address the impacts of implementing the Cactus Basins Recharge Project (proposed project) in Rialto, California. The Upper Cactus Basins Flood Control Facility (Cactus Basins) are owned and currently operated for flood control by the San Bernardino County Flood Control District (SBCFCD). Created in 1939, the SBCFCD manages an extensive system of flood control and water conservation facilities, including dams, conservation basins, debris basins, channels and storm drains. These facilities serve to intercept and convey flood flows through and away from developed areas, as well as to promote water conservation and improved water quality (SBC, 2016).

SBVMWD is the public agency with principal responsibility for construction and operation of the proposed project, which includes installation of the Cactus Basins Pipeline and recharge of the Cactus Basins with imported water. SBVMWD is proposing to maximize recharge of State Water Project (SWP) water (up to approximately 7,000 acre-feet per year (AFY), subject to on-going modeling analyses) at the Upper Cactus Basins when they are not in use for flood control. The proposed project also includes construction of a pipeline to convey imported water (the Cactus Basins Pipeline) and on-going maintenance activities as related to recharge of imported water at Cactus Basins 3/3A and 5. As part of the proposed project, SBVMWD will enter into a recharge agreement and obtain an encroachment permit from SBCFCD for the use and maintenance of Upper Cactus Basins (3/3A and 5).

Incorporated under the Municipal Water District Act of 1911 (California Water Code Section 71000 et seq., as amended), SBVMWD was formed in 1954 as a regional agency for long-range water supply planning in the San Bernardino Valley. It imports water into its service area through participation in the SWP and manages groundwater storage within its boundaries. As a water wholesaler, Valley District does not deliver water directly to retail water customers. Valley District provides roughly 25 percent of the region's water needs through deliveries to retail water agencies

that serve the cities and communities of Bloomington, Colton, Fontana, Grand Terrace, Highland, Loma Linda, Mentone, Redlands, Rialto, San Bernardino, and Yucaipa (**Figure 1**).

A five-member, locally elected, Board of Directors establishes policy for Valley District and is the decision-making body for consideration and adoption of the CEQA document for the project. This Initial Study has been prepared to accompany the Notice of Preparation (NOP) of an Environmental Impact Report (EIR). For environmental topics where sufficient information is available, environmental analysis and impact assessment are provided in the Initial Study. Other topics to be considered in the EIR are noted as potentially significant impacts. For these select topics, detailed analysis and impact assessment will be presented in the EIR.

1.2.1 Project Background

1.2.1.1 State Water Project

Planned, constructed, and operated by the California Department of Water Resources (DWR), the SWP is a water storage and delivery system of reservoirs, aqueducts, power plants and pumping plants extending more than 700 miles. It was built to deliver about 4.2 million acre-feet (af) of water per year to the Central Valley, South Bay area and southern California (WEF, 2020). The project begins at Oroville Dam on the Feather River and ends at Lake Perris near Riverside. Supplying water to more than 27 million Californians and 750,000 acres of farmland, a key feature is the 444-mile long California Aqueduct (DWR, 2020). Approximately 30 percent of SWP water is used for irrigation, primarily in the San Joaquin Valley and 70 percent is used for residential, municipal, and industrial use (WEF, 2020).

Valley District is one of the 29 State Water Contractors who distribute SWP water to farms, homes, and industry. The State of California and Valley District entered into a contract on December 30, 1960 (since amended) that sets forth the terms and conditions of supply and payments. Water supply each year depends on rainfall, snowpack, runoff, water in storage facilities, and pumping capacity from the Delta, as well as operational constraints for fish and wildlife protection, water quality, and environmental and legal restrictions (DWR, 2020). Currently, Valley District's maximum annual SWP Table A water contract amount is 102,600 af (DWR, 2019). [Table A is an exhibit to the SWP water supply contracts; the maximum Table A amount is the basis for apportioning water supply and costs to the SWP contractors.] In 2021, deliveries to Valley District were 5 percent of the Table A amount, or 5,130 af.

1.2.1.2 SBVMWD Demand and Groundwater Recharge

As documented in the Upper Santa Ana River Watershed 2020 Integrated Regional Urban Water Management Plan (IRUWMP; BTAC, 2021), the population within the Valley District service area is projected to reach 870,000 by 2045 and the population of the Region as a whole is projected to reach over 1.25 million people. By 2045, total projected water demands for all of the retail water agencies within the Region are expected to reach nearly 400,000 AFY. According to the 2020 IRUWMP, the Region has adequate supplies to meet demands under various conditions for the next 25 years, including a 15 percent Reliability Factor.

SBVMWD has been recharging SWP water in SBCFCD basins in San Bernardino and Yucaipa since the 1970s. The Cactus Basins overlie the Upper Santa Ana Valley Groundwater Basin, Rialto-Colton subbasin (groundwater basin number 8-2.04; DWR, 2004). This 47 square-mile subbasin is bounded by the San Gabriel Mountains on the north, the San Jacinto fault on the east, the Box Spring Mountains on the south, and the Rialto-Colton fault on the west (DWR, 2004). Based on groundwater modeling conducted for the Rialto-Colton subbasin from 1945 to 2014, Basin storage decreased by an average of 3,830 af/yr. Cumulatively, the annual change in groundwater storage over the period from 1970 to 2014 was a decline of 64,200 af (Geoscience, 2015).

1.2.1.3 Existing Operations

With an enhancement project currently underway, the Cactus Basins are intended to provide 100-year flood protection to residences, businesses, and public infrastructure adjacent to Cactus Channel and Rialto Channel in the cities of Rialto and Colton, San Bernardino County, California. Increased runoff from the construction of State Route 210 (SR-210) to the north of the basins (completed in 2007), and continued development of new residential, commercial, and industrial uses upstream, continues to increase the demand for flood control systems (SBCFCD, 2012).

Previously a sand and gravel mining operation, the Cactus Basins system includes five separate basins over approximately 116 acres owned by SBCFCD (**Figure 2**). Basins 1 and 2 are existing basins located south of Base Line Road and are not included in the proposed project. West Valley Water District currently discharges flows into Basin 2. Basins 3/3A, 4 and 5 (Upper Cactus Basins) are located north of Base Line Road. Construction of Basin 3/3A was completed in 2016 and construction of Basins 4 and 5 is on-going by SBCFCD (as of 2022). The on-site portion of the Rialto Channel begins at the southwest corner of Basin 3/3A and receives stormflow from the City of Rialto. Flows from the Cactus Channel under Easton Street will be diverted into Basin 5.

The on-going construction project by SBCFCD includes (SBCFCD, 2012):

- Widening and deepening the three Upper Cactus Basins to a depth of 43 feet (average elevation of 1,346 feet above mean sea level (amsl))
- Alignment of the basins with Cactus Channel to the north and the Rialto Channel to the south
- Construction of earthen dams in Basin 3/3A, between Basins 3/3A and 4, and between Basins 4 and 5
- Construction of various appurtenant structures
- Construction of a bicycle/walking trail for recreational use on the perimeter of the basins
- Implementation of a Flood Control System Maintenance Plan

1.2.2 Project Objective

The objective of the project is to spread imported water at the existing Cactus Basins for recharge of the Rialto-Colton groundwater subbasin. Groundwater would then be withdrawn via existing wells to augment potable water resources in the SBVMWD service area. The project would

increase local groundwater supplies consistent with the IRUWMP, which has a goal of improving water supply reliability including proactive management of groundwater basins (BTAC, 2021).

1.3 PROJECT LOCATION AND ENVIRONMENTAL SETTING

1.3.1 Project Location

Located in the eastern two-thirds of the San Bernardino Valley, the Crafton Hills, and a portion of the Yucaipa Valley, SBVMWD's service area covers about 353 square miles in southwestern San Bernardino County (**Figure 1**). Serving a population of about 698,000, the SBVMWD spans and includes the cities and communities of San Bernardino, Colton, Loma Linda, Redlands, Rialto, Bloomington, Highland, East Highland, Mentone, Grand Terrace, and Yucaipa.

The Cactus Basins are located in the north-central portion of the City of Rialto, in the east half of Township 1 North, Range 5 West, Section 34. The latitude/longitude of the approximate center of Cactus Basin 3 is 34.125°N/-117.388°W. The Upper Cactus Basins (3/3A, 4 and 5) are located adjacent to and south of Easton Street, adjacent to and north of Base Line Road, west of Cactus Avenue, and east of Ayala Drive. Access to the site is provided via Interstates 10, 15 and 215, and State Routes 210 and 66.

1.3.2 Environmental Setting

Located on an alluvial fan at the base of the San Gabriel Mountains, the project site is approximately 2 miles west of the ephemeral Lytle Creek Wash. The Cactus Basins are surrounded by dense development including residential, commercial, institutional, and industrial uses. Located on the historic floodplain of Lytle Creek, the site was previously mined for sand and gravel resources. The underlying Rialto-Colton groundwater subbasin has areas of known contamination (perchlorate and trichlorethylene); a portion of the basin is designated as a Superfund site. [Superfund sites are polluted locations in the United States designated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and requiring a long-term response to clean up hazardous material contaminations.]

Vegetated areas at Cactus Basins include the SBCFCD-designated Habitat Restoration Area located immediately east of Cactus Basin 3/3A, which was established as mitigation for a previous project. Prior to the start of the current construction project, habitat types present at the Cactus Basins included: Riversidean sage scrub (California sagebrush, deerweed, California buckwheat, black sage, and prickly-pear cactus), chaparral (hollyleaf cherry, chamise, spiny redberry and wedge-leaf ceanothus), willow cottonwood woodland, mulefat scrub, streambed (open flood channel sparsely vegetated with native and non-native species) and disturbed habitat (SBCFCD, 2012). Existing conditions for biological resources in 2021 will be described in detail in the EIR.

1.4 PROJECT DESCRIPTION

The proposed project includes recharge of imported water to the Cactus Basins 3/3A and 5, maintenance of basins 3/3A and 5 as related to recharge operations, and construction and operation of the Cactus Basins Pipeline (**Figure 3**). The proposed pipeline will flow under pressure to a concrete distribution structure where it will flow by gravity to a City of Rialto storm drain (buried

pipe). No pump stations would be required. A concrete structure housing the flow control valves and meters will be constructed adjacent to the turnout off of the Devil Canyon Azusa Pipeline (DCAP), in which SBVMWD has access to SWP water.

1.4.1 Cactus Basins Recharge

SWP water is conveyed from the California Aqueduct to the Devil Canyon Afterbay and to the west side of SBVMWD's service area via the Devil-Canyon Azusa Pipeline, in which SBVMWD owns capacity. Under the proposed project, SWP supplies, when available and ordered, will be conveyed from a new turnout on North Riverside Avenue off the Devil Canyon - Azusa Pipeline to a new pipeline (Cactus Basins Pipeline described below) to a City of Rialto storm drain and then to an existing San Bernardino County storm drain prior to discharge at Cactus Basin 5. The volume of water to be recharged will be optimized based on availability of SWP supplies; capacity of basins 3/3A and 5; availability of the basins for non-stormwater use based on annual hydrologic conditions; and impacts on existing groundwater conditions including impacts to the existing contaminant plume. At this time, approximately 7,000 AFY is targeted for recharge (subject to on-going modeling analyses). A percolation rate of 1.5 feet per day has been estimated for the Cactus Basins; this rate is assumed to be about half of the United States Geological Survey (USGS) (Moreland, 1972) percolation rate to account for longer term percolation (USAWR Association, 2007). The specific percolation rates used for groundwater modeling, the potential groundwater plume impacts, and the anticipated annual average recharge volume will be presented in the EIR.

To avoid adverse impacts to flood control, recharge would occur primarily in the dry season, April to October. However, in compliance with operating rules, recharge may also occur in other times of the year. In general, the maximum volume of SWP water that can be stored in a basin is equal to the volume of water that can be recharged in up to an approximately 7-day period. Therefore, when a storm is forecast to occur within approximately 7 days, SWP water deliveries would cease. When a large storm was not previously forecast but may occur in a couple of days, water from the basins can also be released to downstream flood control channels in order to restore basin capacity for flood flows. During a storm, no imported water would be spread. Based on the Cactus Basins Operations and Maintenance Plan (O&M Plan, currently in preparation), these general guidelines will be detailed more specifically in the EIR.

1.4.2 Cactus Basins Maintenance

The Cactus Basins O&M Plan will identify the activities necessary to maximize recharge including operational parameters associated with filling, recharging and draining, and maintenance activities including vegetation / silt removal and disking / ripping basin floors to improve recharge. Operational and maintenance schedules and activities are proposed to commence following finalization of construction by SBCFCD, and will consequently start from a baseline condition of bare earth (for the basin bottoms). Specific O&M schedules and activities will be defined to reflect the dual use of the basins for stormwater management and groundwater recharge. At this time, it is anticipated that basin maintenance for the purposes of recharge would occur one to three times per year and take approximately 1 to 2 weeks to complete during each maintenance period. The necessity for basin maintenance would vary each year based on the intensity and frequency of storm events.

Basin Vegetation Management. Vegetation would be managed in the basins to preserve infiltration characteristics, basin volume and flow-through capacity, as well as to reduce mosquito habitat. Vegetation on the side slopes that will be inundated by recharge water and basin bottoms will be removed once or twice per year in order to prevent trees and shrubs from becoming established. Vegetation removal would also serve to reduce the spread of non-native and invasive species at the site and to downstream areas (e.g., tree tobacco, castor bean, tree of heaven, China berry, eucalyptus and fan palm). Control of weeds, grasses, aquatic vegetation (including emergent vegetation), and woody and herbaceous plants would require mechanical means, hand labor, and chemical applications. Herbicides (typically glyphosates), if used, would be applied by trained and licensed applicators using sprayers mounted on a service truck or backpack sprayers. Equipment for vegetation management could include tractor mowers, loaders, power trimmers, and manual tools such as pruning loppers, saws and clippers to trim and thin vegetation. Vegetation removed from the basins would be disposed off-site.

A portion of Basins 3A may be set aside and managed as a habitat area by SBCFCD. Areas designated for habitat, and an appropriate buffer area, would be protected during basin maintenance by SBVMWD. Details regarding habitat areas at Cactus Basins will be detailed in the EIR.

Sediment Management. Debris such as rocks and tree limbs that enter the basins in stormflows would be removed periodically. Fine clays, silts and sand would then be mechanically removed from the basin interior slopes, floors and berms. Obstacles to the flow of water would also be dredged from in-basin and stormdrain inlet and outlet structures, around flow measuring devices, and at flood control devices such as drop structures, flap gates, culverts, transfer pumps, siphons, and weirs.

Typical construction equipment for vegetation and debris removal would include dozers, graders, backhoes, loaders, and scrapers. After removal of vegetation and debris and sediments, basin floors would be ripped using a bulldozer with ripper attachment, then smoothed by dragging a bar or screen behind the bulldozer. Sediment removal would serve to maintain percolation rates at the basins, but would not substantially alter overall capacity. Sediments may be stockpiled on-site for later use in the repair of eroded areas or side slopes, or hauled off-site. Side slopes may also be maintained through the addition of rip-rap or gabions, as necessary.

1.4.3 Cactus Basins Pipeline

The Cactus Basins Pipeline is proposed to convey water from a 36-inch nozzle located on the DCAP at Station 1729+00. The nozzle is located approximately 1,300 feet northwest of the intersection of North Linden Avenue and North Riverside Drive on the east side of roadway and will transmit SWP water westerly along the Metropolitan Water District of Southern California (MWDSC) right-of-way to the City of Rialto Stormdrain located in North Locust Avenue. From there the water will flow into the San Bernardino County storm drain system and ultimately to the Cactus Basins.

A new concrete flow and metering structure (32 X 24 feet wide, 12 feet deep) would be installed adjacent to DCAP Station 1729+00. From the flow and metering station, the pipeline would be installed as follows (**Figure 3**):

- Within the right-of-way for Riverside Avenue, approximately 184 feet south, across the roadway to the southerly 10 feet of the MWDSC right-of-way (24-inch welded steel pipe).
- Westerly along the southerly 10 feet portion of the MWDSC Easement for approximately 2,168 feet (24-inch high-density polyethylene (HDPE) fusion welded pipe).
- A concrete transition structure (12 X 8 feet wide, 10 feet deep) would be constructed to convert the pressurized flow to open channel flow.
- From the transition structure westerly across Locust Avenue for approximately 54 feet to a City of Rialto 108-inch storm drain (24-inch reinforced concrete pipe (RCP)).

The 0.5 miles of pipeline would terminate at the existing City of Rialto 108-inch storm drain in North Locust Avenue which flows to an existing San Bernardino County storm drain channel north of the SR-210 freeway. From the County storm drain channel, water would discharge into the Cactus Basins south of the SR-210 (into Basin 5). The Cactus Basins Pipeline would be installed within the unpaved open area in the MWDSC right-of-way. The right-of-way is 200 feet wide and the Cactus Basins Pipeline would be in the southern 10 feet of the right-of-way. Pipeline depth may vary, but in general the pipe would be installed from 3 to 8 feet below ground surface. The elevation of the Cactus Basins Pipeline would be between 1,625 feet and 1,665 feet amsl.

The construction footprint width would be up to 10 feet, except at structures. Construction for the structures would be up to 15 feet deep, with a construction disturbance zone of 25 feet around the structure. Construction activities for pipeline installation would include:

- **Materials deliveries**. Materials would be received and stored at Cactus Basins or within the right-of-way of the pipeline alignment roadways.

- **Open cut of existing pavement**. Surface preparation includes breaking and removing pavement with concrete saws and pavement breakers. Debris would be hauled to an appropriate construction/demolition and inert (CDI) landfill or crusher plant via dump trucks. An estimated 25 cubic yards of asphalt debris would be hauled off-site. Assuming 10-cubic yard trucks, up to three trucks would haul construction debris off-site.

- **Excavation**. Trench width would be approximately 5 feet. Backhoes or track hoes would be used for excavation, with hand digging to locate buried utilities. Water trucks, spraying on the order of 10,000 gallons per day, would be used during excavation to control fugitive dust. Suitable soils would be retained for backfill. For excavations 5 feet deep or deeper, the Construction Contractor would develop a shoring and bracing plan to provide worker protection against the hazard of caving ground during the excavation.

- **Placement of bedding**. At the bottom of the trench, coarse base rock (95 percent compaction wrapped in geotextile fabric) would be placed. Pipe bedding (6 inches minimum of material (sand or as per final specifications) at 95 percent compaction would be placed on top of the coarse base rock. It is anticipated that up to one truck per day would deliver bedding material.

- **Pipe installation**. Pipe-stringing trucks would transport the pipe in approximately 40-foot lengths to the Cactus Basins staging area and/or the roadway right-of-way. Tractors would be used to unload and place the pipeline. Steel plates would be used to cover any open trench left at the end of each workday. It is anticipated that up to one truck per day would deliver pipe.

- **Backfilling the trench, compaction**. Backfill materials would be clean, fine earth, rock, or sand, free from grass, roots, brush, or other vegetation. Pipe zone backfill would be at 95 percent compaction. Above the pipe, the trench zone backfill would be compacted to 90 percent of relative compaction. Backfilled earth would be compacted using a roller or hydraulic tamper prior to paving. Approximately 300 cubic yards of excess soil would be generated during construction. This material would be transported to an appropriate CID landfill or construction materials facility (e.g., CEMEX) via dump truck. Assuming 10-cubic yard trucks, on the order of 4 trucks per day would haul excess soil off-site.

- **Pavement restoration**. Asphalt concrete pavement, at least 3 inches in thickness, would be placed over an aggregate base. Curbs would be repaired or replaced as necessary. Final steps would include striping and street cleaning.

Stormwater Controls. Prior to the start of construction, the Construction Contractor would install erosion control measures, such as silt fences, filter fabric, sedimentation ponds, and/or hay bales along the peripheries of construction sites.

Traffic Control. Prior to the start of construction, a Traffic Control Plan would be developed. The Traffic Control Plan will detail lane closures, placement of barricades and safety lights, positioning of flagpersons, and covering of open trenches during non-work periods with a metal plate. Emergency response providers (City of Rialto Police and Fire Departments, California Department of Forestry and Fire Protection) would be notified in advance of the construction schedule, location, and lane closures.

The Traffic Control Plan has not yet been developed, but it is assumed that at any one time, the maximum length of the construction zone (and therefore any lane closures) would be up to 60 feet in length. At this time, it is envisioned that roadways will remain accessible with at least one lane of traffic operational.

Public Notifications. A least 2 weeks prior to the start of construction, SBVMWD would notify residents adjacent to the pipeline alignment and within 500 feet of the construction zone of the construction schedule. A contact name and phone number would be provided, as well as a project website address for project update information.

1.4.4 Construction Duration and Equipment

Construction of the Cactus Basins Pipeline is estimated to occur over approximately 4 to 6 months. Work would be scheduled from Monday to Saturday, in daylight hours, approximately 8 hours per day.

Materials would be stockpiled and construction equipment would be staged along the MWDSC right-of-way. Approximately two to three materials deliveries (pipeline, crushed base, shoring materials) would be expected per day during pipeline installation. It is anticipated that materials would be sourced locally. For example, CEMEX, a sand and gravel supplier, is located immediately east of the proposed pipeline alignment, off North Riverside Avenue.

Excess soil remaining after pipeline installation would be hauled offsite by the Construction Contractor. Approximately 15 construction workers (laborers, equipment operators and supervisors) would be onsite at any one time. The specific equipment to be used would be determined by the Construction Contractor; typical equipment for construction of the splitter box and for pipeline installation is listed in **Table 1**.

Table 1
Cactus Basins Pipeline Construction Equipment

Equipment	Approximate Number During Pipeline Installation
Dump Truck	1-4 (per day)
Hydraulic Breaker	1
Concrete Saw	1
Backhoe or Track Hoe	1
Front End Loader	1
Concrete Mixer Truck	4-6 (per day per pour)
Asphalt Paver	1
Roller Compactor	1
Pickup Utility Truck	1-2
Water Truck	1
Street Sweeper	1
Tractor (delivery trucks)	2-3 (per day)

1.5 LAND USE PLAN APPLICABLE TO THE CACTUS BASINS

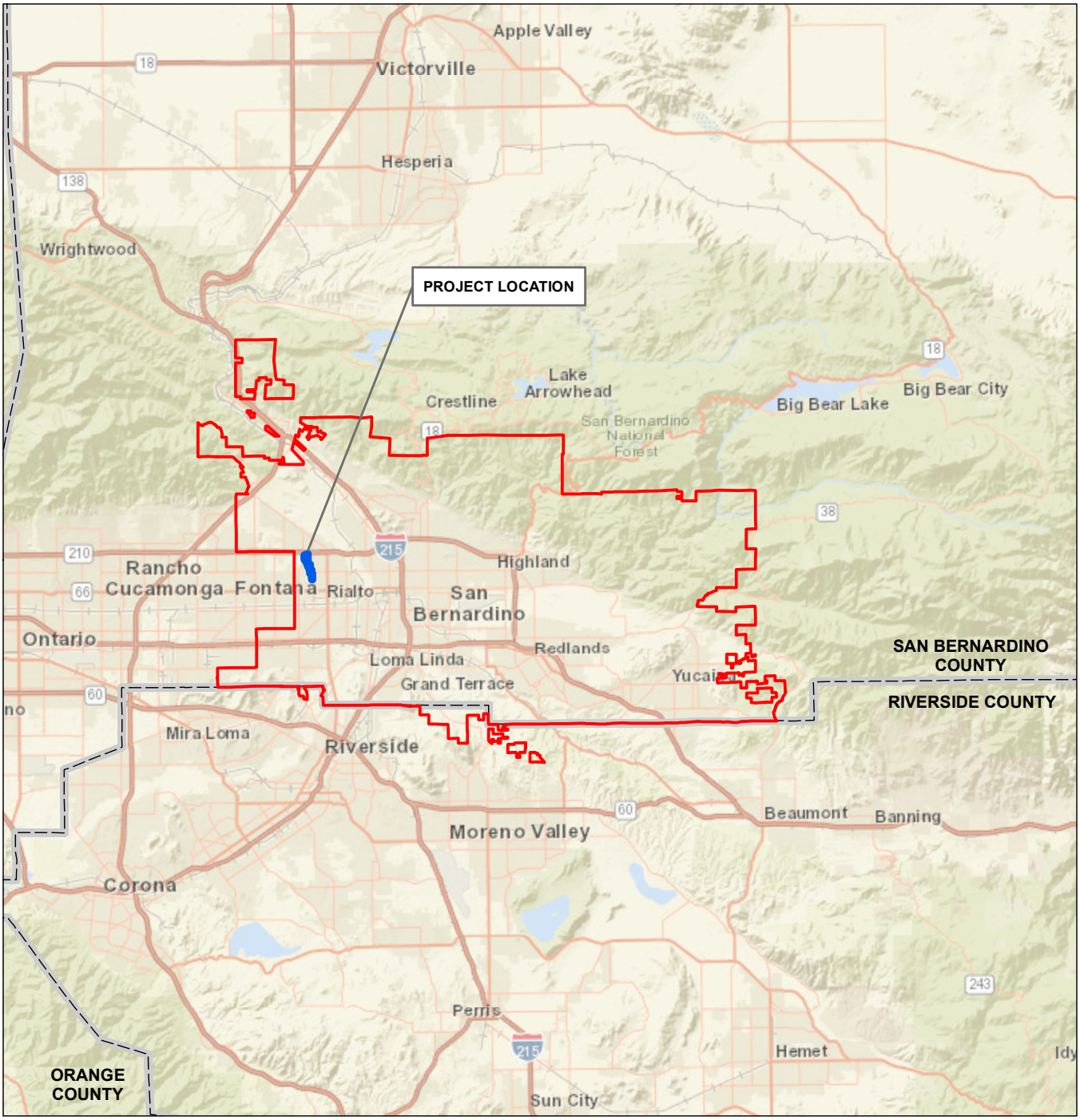
The Cactus Basins are designated as Open Space-Resources (OSRS) on the City of Rialto's Land Use Policy Plan (Rialto, 2010, Exhibit 2.2). The OSRS designation applies to open space areas necessary for the protection and preservation of unique areas for such purposes as groundwater recharge and flood control, habitat and wildlife corridor enhancement, the managed production of aggregate resources, agricultural heritage, transmission of energy resources, and public safety. OSRS areas are restricted from development to protect health and safety.

1.6 PROJECT APPROVALS

Permits, approvals and notifications for the recharge project construction and operation are anticipated to include:

- SBVMWD will enter into an agreement and obtain an encroachment permit from SBCFCD for the use and maintenance of Cactus Basins 3/3A and 5.

- SBVMWD will enter into an agreement and obtain an encroachment permit from MWDSC for the installation of the Cactus Basins Pipeline in the MWDSC right-of-way.
- As relevant, consultation with the California Department of Fish and Wildlife (CDFW) and coordination with United States Fish and Wildlife Service (USFWS) regarding threatened and endangered species would be conducted.
- Depending on the jurisdictional status of maintenance areas, a Streambed Alteration Agreement per Section 1602 of the Fish and Game Code may be sought from the CDFW.
- Depending on the jurisdictional status of maintenance areas, a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers may be required. Any such permit may be subject to water quality certification under Clean Water Act Section 401 and associated Waste Discharge Requirements, to be issued by the Santa Ana Regional Water Quality Control Board (RWQCB).
- Construction dewatering, if relevant, would require permitting by the Santa Ana RWQCB. In June of 2015, the Santa Ana Region adopted Waste Discharge Requirements Order No. R8-2015-0004 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG998001 to regulate construction dewatering.
- Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, would require a transportation permit from the California Department of Transportation (Caltrans).
- The City of Rialto Public Works Department would be contacted and notified of work proposed for roads under City jurisdiction. Building and grading permits would be obtained from the City, as applicable.
- Notification of lane closure schedules would be made to the Rialto Police and Fire Departments, California Department of Forestry and Fire Protection and to adjacent homeowners and businesses, prior to the start of construction activity.



San Bernardino Valley Municipal Water District Sphere Of Influence

Cactus Basins

County Boundaries

0 4 8 Miles

(At original document size of 8.5x11)
1:506,880

N

Stantec

Project Location	Prepared by DL on 2020-07-30
Riverside County, California	TR by ST on 2020-07-30
	IR by JV on 2020-07-30
Client/Project	185804632

San Bernardino Valley Municipal Water District
Cactus Basins Recharge Project
Initial Study

Figure No.

1

Title

Project Vicinity

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Stantec 2020.
3. Background: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Cactus Basins

0 600 1,200 Feet

(At original document size of 8.5x11)
1:13,000

N

Stantec

Project Location	Prepared by DL on 2020-07-30
Riverside County, California	TR by ST on 2020-07-30
	IR by JV on 2020-07-30
Client/Project	185804632

San Bernardino Valley Municipal Water District
Cactus Basins Recharge Project
Initial Study

Figure No.

2

Title

Cactus Basins Location Map

Notes

1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Stantec 2020.
3. Background: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS

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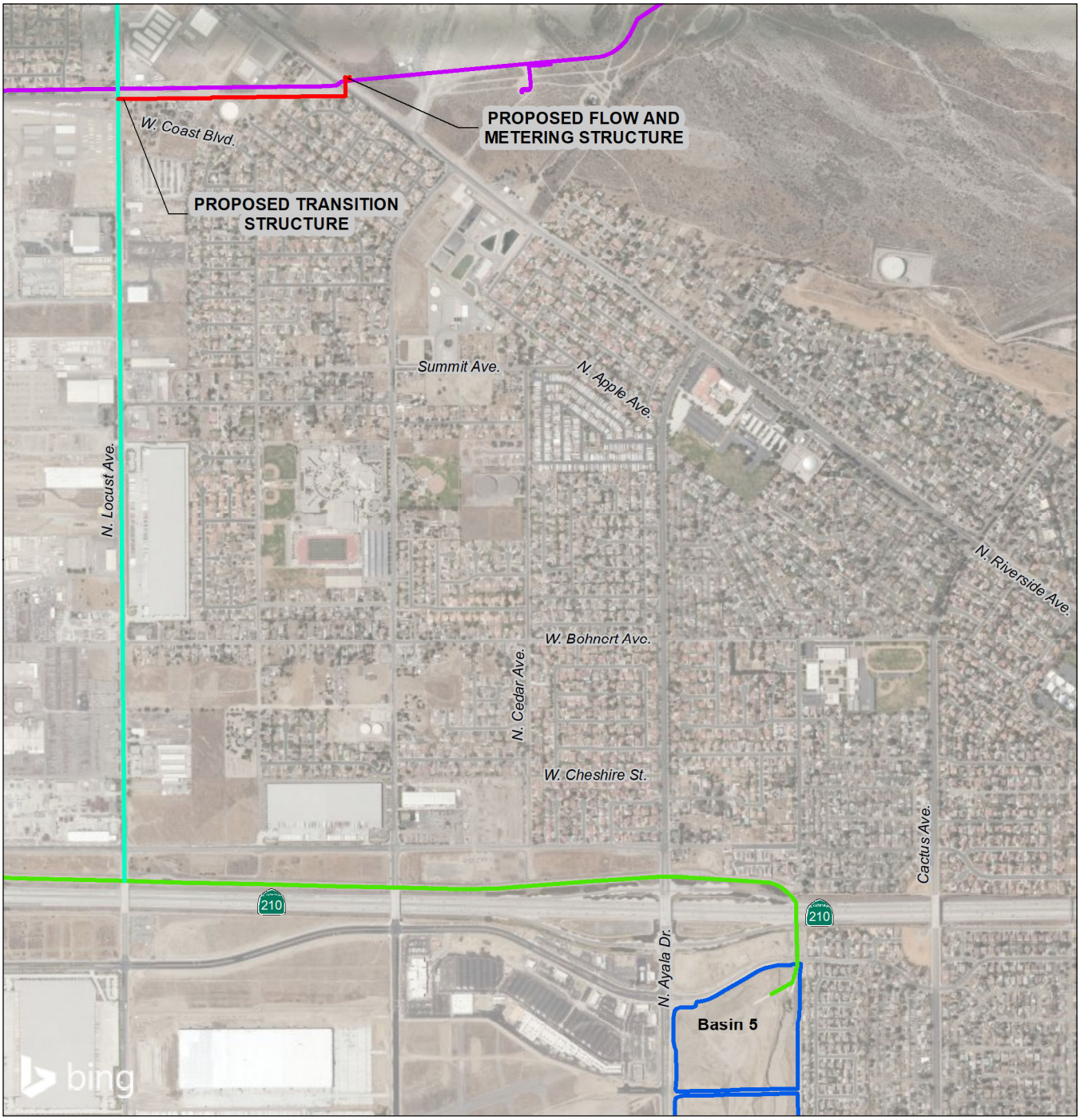

Cactus Basin 5
Proposed Cactus Basins Pipeline
Existing Devil Canyon Azusa Pipeline
Existing City of Rialto Storm Drain
Existing San Bernadino County Storm Drain

0 750 1,500 Feet

(At original document size of 8.5x11)
1:18,000

N

Stantec

Project Location	Prepared by DL on 2021-09-06
Riverside County, California	TR by ST on 2021-09-06
	IR by SG on 2021-09-06
Client/Project	185804632

San Bernardino Valley Municipal Water District
Cactus Basins Recharge Project
Initial Study

Figure No.

3

Title

Cactus Basins Pipeline Location Map

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Data Sources: Stantec 2020.
3. Background: © 2021 Microsoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS

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Section 2
Environmental Analysis

2.1 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" as indicated by the checklist on the following pages.

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

2.2 AGENCY DETERMINATION

On the basis of this initial evaluation:

☐ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

☒ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the 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 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 project, nothing further is required.

Signature: Heather Dyer Title: CEO/General Manager

Printed Name: Heather Dyer Date: July 7, 2022

2.3 ENVIRONMENTAL CHECKLIST

2.3.1 Aesthetics

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion: The City of Rialto has developed several General Plan policies to protect scenic vistas and scenic resources (Rialto, 2010):

Goal 2-14: Protect scenic vistas and scenic resources

- Policy 2-14.1: Protect views of the San Gabriel and San Bernardino Mountains by ensuring that building heights are consistent with the scale of surrounding, existing development.
- Policy 2-14.2: Protect views of the La Loma Hills, Jurupa Hills, Box Spring Mountains, Moreno Valley, and Riverside by ensuring that building heights are consistent with the scale of surrounding, existing development.
- Policy 2-14.3: Ensure use of building materials that do not produce glare, such as polished metals or reflective windows.

a) and c) **Less than Significant Impact**. Existing views of the Cactus Basins are of existing Basins 1, 2, 3 and 3A, and the construction activity for Basins 4 and 5 (**Figure 4**). Although based on the elevation of the basins versus the surrounding streets, views of water surfaces or basin bottoms are limited from offsite properties. Views of the proposed pipeline alignment are of the unpaved MWDSC right-of-way, City streets and residences.

Visual Impacts During Construction. Construction activities for the pipeline installation would include trench excavation, placement of bedding material, pipeline installation, soil compaction and road resurfacing. Views of the project site during construction would include

up to approximately 15 workers and approximately 15 vehicles/equipment – such as hydraulic breakers, backhoes, asphalt pavers and dump trucks. The impact would be limited to approximately 50 to 150 feet of active pipeline installation at any one time. Construction-related impacts on visual character of the site would be temporary and less than significant.

Visual Impacts During Operation. Once the pipeline is installed, the road surface will be restored and the aesthetics of the site would be similar to existing conditions. Basin maintenance activities would be confined to the Cactus Basins property, occur infrequently, and use equipment such as tractors, backhoes and dump trucks. Since maintenance would occur primarily on the bottoms and side slopes of the depressed basins, views from offsite observers would be limited. Cactus Basin recharge activities would result in Basins 3/3A and 5 having larger volumes of water over a longer period of the year than under existing conditions, a beneficial aesthetic impact, but limited primarily to on-site viewers. Since the project would not block views of the mountains, include tall structures or propose building materials that cause glare, the project would not conflict with any of the City's policies related to the protection of scenic resources. Overall, operational-impacts on the visual character of the project sites would be less than significant.

b) **No Impact**. Scenic roadways are designated by San Bernardino National Forest, Caltrans, and the Federal Highway Administration. In San Bernardino County, the closest eligible scenic highways are Route 330 in Highland and Route 38 in Redlands (both approximately 12 miles east of the Cactus Basins) (Caltrans, 2021). The closest Officially Designated Scenic Highway is Route 2 in Los Angeles, over 30 miles northwest of the Cactus Basins. The stated intent of the California Scenic Highway program is to protect and enhance California's natural beauty and to protect the social and economic values provided by the State's scenic resources (Streets and Highway Code Section 260). Observers along these roadways would not have views of the Cactus Basins nor the Cactus Basins Pipeline construction activity. Therefore, there would be no impacts from project construction or operation on views from a State or County scenic highway.

d) **No Impact.** The use of temporary lighting for pipeline installation would not be anticipated since construction activity would be conducted during the day. Existing security lighting present at Cactus Basins would not be altered by the recharge project. Since the proposed project does not include new sources of light, there would be no impacts on light or glare.

Figure 4
Photograph of Upper Cactus Basins Rehabilitation Project

Source: Stantec, January 22, 2020

2.3.2 Agriculture and Forestry Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion: The City of Rialto General Plan (2010) notes that few agricultural activities occur in Rialto, aside from a single private citrus grove on Cactus Avenue south of Carter Street. Therefore, General Plan goals related to agricultural and forestry have not been established.

a) **No Impact.** The Farmland Mapping and Monitoring Program (FMMP) does map Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance and Grazing Land in San Bernardino County (California Department of Conservation, 2016). In the project vicinity, Lytle Creek Wash (over 1 mile east of the Cactus Basins) is mapped as Grazing Land. Approximately 5 miles west of the project site, at the intersection of SR-210 and I-15, Unique Farmland is mapped. However, there is no important farmland mapped on the project areas nor is any farming conducted on or immediately adjacent to the project site. Therefore, the proposed project would have no impact on conversion of FMMP designated Farmland.

b) **No Impact.** The City of Rialto Land Use Policy Plan (Rialto, 2010, Exhibit 2.2) maps the land use designation of the Cactus Basins as OSRS which applies to open space areas necessary for the protection and preservation of unique areas for such purposes as groundwater recharge and flood control, habitat and wildlife corridor enhancement, the managed production of aggregate resources, agricultural heritage, transmission of energy resources, and public safety. The Cactus Basins Pipeline would be installed in areas designated as Rialto Airport Specific Plan and single family residential (City of Rialto, 2013a). The flow and metering structure would be on land zoned U (Utility). The project areas and the immediate project vicinity are not mapped for agricultural use. Enacted in 1965, the California Land Conservation Act

(Williamson Act) involves voluntary contracts between landowners and a city or county in which they agree to retain their lands in agriculture or other open space uses for a minimum of 10 years. The landowners receive property tax relief on the lands under contract. No Williamson Act contracts are relevant for the project areas; therefore, the proposed project would have no impact on agricultural zoning or Williamson Act contracts.

c) and d) **No Impact.** Public Resources Code Section 12220 (g) defines "Forest land" as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There are no timber production zones in the project areas. The project areas are not used for timber harvest and the proposed pipeline installation and operation of the recharge basins would not alter existing use of the sites. Since the project would not result in conversion of forest land to non-forest use, the project would have no impact on forest lands.

e) **No Impact.** The project would not require construction on or adjacent to forest harvest areas or farmlands, or change the use of the project sites. Therefore, there would be no impact on agricultural operations from construction and operation of the Cactus Basins Recharge Project.

2.3.3 Air Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) 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?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☒	☐	☐	☐

Discussion:

The city of Rialto is within the San Bernardino portion of the South Coast Air Basin (SCAB) under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the Pacific Ocean to the south and west. The SCAB is state-designated as a non-attainment area for ozone (8-hour), particulate matter 10 microns or less in diameter (PM_{10}), and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$) (SCAQMD, 2016a). Based on the federal standards, the SCAB is an extreme non-attainment area for ozone (8-hour) and in attainment for PM_{10}. The SCAB is state and federal-designated as in attainment for nitrogen dioxide, sulfur dioxide and carbon monoxide. The applicable air quality plan for the project area is the 2016 Air Quality Management Plan (AQMP) (SCAQMD, 2016b). The AQMP is designed to satisfy the planning requirements of both the federal and California Clean Air Acts. The AQMP outlines strategies and measures to achieve federal and state standards for healthful air quality for all areas under SCAQMD's jurisdiction.

a) through d) **Potentially Significant Impact.** Air pollutant emissions associated with construction of the Cactus Basins Pipeline would result from construction equipment, vehicles and personnel. The relationship of the project to the AQMP; the worst-case, peak-day emissions estimates for construction and operations activity; impacts on sensitive receptors; and the potential for the project to generate odors will be detailed in the EIR.

2.3.4 Biological Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any 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?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☒	☐	☐	☐

General Impact Discussion: A Biological Resources Technical Report (BRTR) for the project area is in progress (as of 2022).

a) through f) **Potentially Significant Impact.** The BRTR for the project will detail the results of relevant records searches, pedestrian survey of project areas, the sensitive species and/or habitat types found or with the potential to occur on the site, impact assessment and mitigation measures for the protection of biological resources, as relevant. Designated habitat restoration areas at the project site will be described. The results of the biological resources review and impact assessment will be presented in the EIR.

2.3.5 Cultural Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion: The project area is within San Bernardino County, within the western extent of the Mojave Desert/Colorado Desert region (Norris and Webb, 1990). Prior to the development of the Cactus Basins around 2000, the area was an active gravel pit.

Records Searches. In 2012, as part of the Upper Cactus Basins project, a Phase I and Class III cultural resources investigation was conducted for the Cactus Basins site (McKenna, et al., 2012). An archaeological records search through the San Bernardino County Museum, Archaeological Information Center, Redlands, California compiled data on previously completed studies within 1 mile of the project area. The following information sources were reviewed:

- San Bernardino County Archaeological Information Center
- Natural History Museum of Los Angeles County
- Historical Maps
- Interviews/Respondents
- San Bernardino County Assessor's Maps and Records
- San Bernardino County Flood Control Files and Archives

Based on these records, the site was determined to be associated with the Serrano, a small Native American group occupying the San Gabriel/San Bernardino Mountains and foothills (Bean and Smith, 1978). Known as hunters and gatherers, definitive boundaries for Serrano territory are not known (McKenna, et al., 2012).

Historic site records for the Upper Cactus Basins include three homesteads: Nelson Sanderson homestead of 1886, part of the J. Ousterhout Timber Cultural claim of 1882, and approximately half of the Perry homestead of 1882 (McKenna, et al., 2012).

The Information Center identified a minimum of 17 area-specific studies and another 9 general overviews for the surrounding area. In addition, McKenna et al. (2012) reviewed the listing of properties in the National Register of Historic Places, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest. Locally recognized

resources were also investigated. Data on file at the Information Center yielded no sites within the Upper Cactus Basins project area and one California Point of Historical Interest (CPHI):

- CPHI-12 (P36-015497): Baseline Road.

In January 2021, Stantec undertook a renewed record search at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. This recent record search provides the most current information about the present Cactus Basins Project area and identified the following sites within the Area of Potential Effect (APE):

- P-36-014203: the circa 1945 (renovations circa 1960) Nadon Residence was located at 2044 Ayala Avenue. The house was demolished when Interstate 210 was developed.

Field Survey. A field survey was completed on August 15, 2012, and involved a pedestrian survey of all accessible areas north of Baseline Road and within the APE for the SBCFCD Upper Cactus Basins project (which included Basins 3/3A, 4 and 5). The survey was subjective, accessing areas where native soils may have been exposed. Areas of dense vegetation or significant alteration were spot-checked. The surveyor also completed a reconnaissance level survey south of Baseline Road and in the vicinities of Basins 1 and 2. During the field survey, no evidence of prehistoric archaeological resources, no historic archaeological resources, no standing structures, no isolated artifacts, nor paleontological resources were identified.

a) **No Impact.** The proposed project would require excavation for installation of the Cactus Basins Pipeline. The pipeline would be installed in MWDSC right-of-way and city streets, in previously disturbed areas. No structures or potentially significant historic resources would be disturbed by project construction.

   Previous investigations of the Cactus Basins did not identify historic resources within the project area (McKenna et al., 2012). The existing flood control features were identified as being built after 1996 and are therefore modern and of no historic significance. No homesteading components or quarrying features were identified at the site. Maintenance of the Cactus Basins would be limited to the immediate surface of the basin bottoms and side slopes, no disturbance of native soils would be anticipated. Operation of the project would therefore have no impact on cultural resources.

b) **Less than Significant Impact with Mitigation Incorporated.** The proposed project would require excavation for installation of the Cactus Basins Pipeline. The pipeline would be installed in MWDSC right-of-way and city streets, in previously disturbed areas. However, where excavation for the transition and metering structures would be deeper (up to approximately 15 feet), there is the potential of encountering native soils and some limited potential to encounter previously unknown cultural resources. If artifacts are present in native soils, a limited potential exists for project construction to significantly impact the resources.

   Previous investigations of the Cactus Basins did not identify archaeological resources within the project area (McKenna et al., 2012). Maintenance of the Cactus Basins would be limited to the immediate surface of the basin bottoms and side slopes, no disturbance of native soils

would be anticipated. Operation of the project would therefore have no impact on cultural resources.

Qualified Native American monitors will be afforded an opportunity to be present during earthwork associated with installation of the Cactus Basins Pipeline. Additionally, implementation of mitigation measures CUL-1 and CUL-2 would protect unknown cultural resources during pipeline installation. As mitigated, impacts on cultural resources would be less than significant.

CUL-1. Archaeological Awareness Training. All construction workers and supervisors shall attend a mandatory workshop providing information on cultural resources that may be present in the project vicinity; penalties for unauthorized collection of artifacts; and the need to temporarily redirect work away from the location of any unanticipated discovery until it is recorded and adequately documented and treated. The presentation shall be available to train additional personnel who may join the construction crew after the initial training.

CUL-2. Unanticipated Discoveries. If previously unrecorded cultural resources are encountered at any time during project construction, all work shall cease within 50 feet of the discovery until the find can be evaluated by a qualified archaeologist. If determined to be potentially significant, a treatment or avoidance plan shall be developed within 48-hours of the discovery. Native American representatives of the San Manuel Band of Mission Indians and the Morongo Band of Mission Indians would then be notified of the find. Work shall not resume in areas determined by the archaeologist as sensitive until the discovery has been evaluated and the recommendations for treatment have been implemented.

c) **Less than Significant Impact with Mitigation Incorporated.** Based on previous reviews of the Cactus Basins, no recorded cemeteries are located within the proposed project area (McKenna et. al, 2012). In the unexpected event that human remains are discovered during project construction or operation, the County Coroner shall be contacted, the area of the find would be protected, and provisions of State CEQA Guidelines Section 15064.5 and Public Resources Code 5097 would be followed. With implementation of Mitigation Measure CUL-3, project-related impacts on human remains potentially present in the project area would be less than significant.

CUL-3. Unanticipated Human Remains. In the unexpected event that human remains are discovered, the County Coroner shall be contacted, the area of the find shall be protected, and provisions of State CEQA Guidelines Section 15064.5 and Public Resources Code 5097 shall be followed. If the Coroner determines the remains to Native American, SBVMWD shall work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC) as provided in Public Resources Code section 5097.98. SBVMWD shall develop an agreement for the treatment and handling of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC.

With implementation of the above mitigation measures, project-related impacts on cultural resources would be less than significant.

2.3.6 Energy

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Discussion: Energy consumption related to the proposed project would include fuel use for construction of the Cactus Basins Pipeline, operations-related energy for transmission of SWP water to Cactus Basins, and fuel use for maintenance activities at Basins 3/3A and 5.

a) **Less Than Significant Impact.** Project Construction Energy Consumption. Energy for pipeline installation would be consumed in the form of fossil fuels for vehicles and equipment. Specific volumes of gas and diesel would depend on the size and age of equipment selected by the Construction Contractor, the number of hours of active work each day for each vehicle or piece of equipment, and the overall construction schedule. The construction schedule and the equipment selected for use by the Contractor would be overseen by the SBVMWD Construction Manager. To the extent feasible, efficiencies in scheduling and equipment use would minimize the fossil fuels used during construction.

Project Operations Energy Consumption. Project operation would also result in the consumption of fossil fuels for maintenance of the basins. However, the majority of the sediment and debris which enters the basins would be a result of stormwater discharges. The recharge of SWP water proposed under the project may redistribute basin sediments or debris but would not be anticipated to be the major contributor of sediment or debris loading. Additionally, vehicles and equipment used for maintenance would be properly maintained to maximize energy efficiency.

Conveyance of SWP water to southern California also consumes energy. However, the energy used by the SWP at the 21 pumping plants is balanced with the energy generated at the 5 hydroelectric power plants and 4 pumping-generating plants in the system (DWR, 2020). The SWP sells power when it generates a surplus of electricity. Further, DWR promotes clean energy by increasing procurement of renewable energy for operations, improving energy efficiency in pumping and generating facilities, and building renewable energy projects on SWP lands (DWR, 2020).

Overall, the project would increase the reliability of local water supply, an energy savings over increased imported water use in the SBVMWD service area. Since construction and operation

of the project would not be wasteful, inefficient, or unnecessary, the project would have a less than significant impact on energy use.

b) **No Impact.** Planning documents relevant to renewable energy or energy efficiency include the Rialto General Plan (Rialto, 2010) and the San Bernardino Valley Regional UWMP (SBVMWD et al., 2016).

Under the Sustainable Building Practices and Energy Conservation section of the General Plan, the City has established Goal 2-31: Conserve energy resources.

- Policy 2-31.1: Require the incorporation of energy conservation features into the design of all new construction and site development activities.
- Policy 2-31.2: Provide incentives for the installation of energy conservation measures in existing multi-unit residential and commercial developments, including technical assistance and possibly low-interest loans.
- Policy 2-31.3: Educate the public regarding the need for energy conservation techniques which can be employed and systems which are available.

The project includes a new buried pipeline, but would not include development of new buildings or facilities. Since the project would increase the reliability of local water supply, it would not conflict with General Plan energy conservation policies.

For water agencies, greenhouse gas reductions focus on the relationship between water and energy. As reported in the San Bernardino Valley Regional UWMP (SBVMWD et. al, 2016), a Greenhouse Gas Emissions Calculator was developed by the Santa Ana Watershed Project Authority (SAWPA) and the United States Bureau of Reclamation (Reclamation). The calculator showed that for the Upper Santa Ana River (SAR) watershed, the most appropriate ways to effectively reduce the volume of carbon emissions related to water treatment and meet Assembly Bill (AB) 32 goals would be to reduce imported water usage and increase local supply usage and water use efficiency. Since the proposed project would increase the reliability of local water supply, the project would be consistent with the San Bernardino Valley Regional UWMP. Consequently, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; there would be no adverse impacts on energy planning.

2.3.7 Geology and Soils

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause 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.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit 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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Discussion: As noted on the USGS San Bernardino 30'x60' quadrangle, the project region is diagonally bisected by the San Andreas Fault Zone, separating the San Gabriel and San Bernardino Mountains, major elements of California's east-oriented Transverse Ranges Province (USGS, 2003). Three well-defined basement rock assemblages are present - the San Gabriel Mountains, San Bernardino Mountains, and the Peninsular Ranges assemblages. A fourth assemblage is restricted to a narrow block bounded by the active San Andreas Fault and the Mill Creek Fault. Tertiary sedimentary and volcanic rocks are unique to specific assemblages, and a few Miocene and Pliocene units cross the boundaries of adjacent assemblages. Tectonic events directly and indirectly related to the San Andreas Fault system have partly dismembered the basement rocks, forming the modern-day physiographic provinces.

a)-i) and a)-ii) **Less Than Significant Impact.** Located atop the Pacific Plate, the City of Rialto is subject to seismic hazards. The project vicinity (within 1 to 6 miles from the basins) includes Alquist-Priolo Earthquake Fault Zones along the Glen Helen, San Jacinto, Lytle Creek, Cucamonga and San Andreas Faults. However, the project area is not mapped within an Alquist-Priolo Fault Zone (Rialto, 2010, Exhibit 5.1). The San Jacinto, San Andreas, and Cucamonga faults have the potential of generating earthquakes of maximum magnitudes ranging from 6.7 to 8.0. Therefore, surface rupture and seismic ground shaking are possible for the project site and surrounding region. Pipeline design would be done consistent with relevant seismic code requirements (California Building Code) and guidance documents such as the *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI 7-16, 2017). Design features to limit seismic impacts would include flexible pipe couplings and seals. Since habitable structures would not be built as part of the proposed project, people would not be exposed to adverse effects involving seismic ground shaking. Damage to project facilities would be repaired as necessary. Therefore, impacts related to seismic events would be less than significant.

a)-iii) **Less Than Significant Impact.** Soils with moderate liquefaction susceptibility (sediments are young (less than 10,000 years old), unconsolidated, with fine-grained layers, and there has been artesian well activity historically) are mapped along the Cajon Wash, approximately 2 miles east of Cactus Basins (Rialto, 2010, Exhibit 5.1). Since the project area is not mapped within an area of liquefaction susceptibility (Rialto, 2010), and since habitable structures would not be built as part of the proposed project, people would not be exposed to adverse effects involving seismic-related ground failure. Damage to project facilities would be repaired as necessary. Therefore, impacts related to ground failure would be less than significant.

a)-iv) **Less Than Significant Impact.** Areas of moderate to high landslide susceptibility are mapped approximately 5 miles northwest of the project site (SBC, 2009). The project site is located well away from the mountain front, which has slopes steep enough to initiate a landslide during an earthquake. Additionally, since habitable structures would not be built as part of the proposed project, people would not be exposed to adverse effects involving landslides. Damage to project facilities would be repaired as necessary. Therefore, impacts related to landslides would be less than significant.

b) **Less Than Significant Impact.** Soil disturbance would occur during excavation for the Cactus Basins Pipeline, and during maintenance activities at Cactus Basins. Site preparation for pipeline installation would be unlikely to impact topsoils since these would have been removed during previous ground disturbance. Pipeline installation would be done in compliance with best management practices (BMPs), including measures to control erosion from the construction area. Basin maintenance would manage accumulated sediments but largely leave native soils intact. With compliance with stormwater regulations, impacts related to erosion and loss of topsoil would be less than significant.

c) and d) **Less Than Significant Impact.** The type and amount of clay present in soils, along with moisture content, determine the expansive potential of soils. The project site is in an area of poorly consolidated alluvium from the San Gabriel Mountains (Rialto, 2010). The Uniform Building Code (ICBO, 1994) defines an Expansion Index of soils, which guides foundation design. However, habitable structures would not be built as part of the proposed project. Design

of the proposed pipeline would consider soil conditions and include appropriate design features as relevant. Impacts related to unstable or expansive soils, if any are present on the project site, would be less than significant.

e) **No Impact.** Sanitation facilities are not present or proposed for the project site. Therefore, there would be no impact on soils related to wastewater disposal.

f) **Less than Significant Impact with Mitigation Incorporated.** Paleontological remains are considered limited, nonrenewable, scientific, and educational resources. Fossils can qualify as unique resources because they represent the best examples of specific species found in the region, particularly if they are discovered in an undisturbed context. Fossils can also qualify as unique paleontological resources because they provide evolutionary, paleoclimatic, or paleontological data important to the understanding of geologic history (SVP, 1996).

Vertebrate, invertebrate, and plant fossils are usually found in sedimentary and metasedimentary deposits. The University of California Museum of Paleontology notes 724 paleontological localities within San Bernardino County, but none specifically within Rialto (UCMP, 2020). According to geologic mapping, the project area is underlain and surrounded by young alluvial fan deposits (late Holocene) and old eolian (sand dune) deposits (late to middle Pleistocene) (USGS, 2003). The Cactus Basins area is considered moderately sensitive for paleontological resources, especially in areas of exposed or buried older Quaternary alluvium (SBCFCD, 2012). Monitoring conducted in 2016 did not identify paleontological resources (Ballester, 2016). Since basin maintenance would focus on surface vegetation and sediment management, it is unlikely that native soils would be substantially disturbed during maintenance. Therefore, operation of the proposed project would not significantly impact paleontological resources. However, since installation of the transition and metering structures would be up to approximately 15 feet deep, native soils may be disturbed during installation of the Cactus Basins Pipeline. If significant fossils are present and not recovered or avoided, destruction during construction would be a significant impact. Therefore, mitigation measures GEO-1 and GEO-2 shall be implemented to protect paleontological resources from disturbance during construction of the Cactus Basins Pipeline. With implementation of mitigation, impacts on paleontological resources would be less than significant.

GEO-1. Paleontological Awareness Training. All construction workers and supervisors shall attend a mandatory workshop providing information on paleontological resources that may be present in the project vicinity, and the need to temporarily redirect work away from the location of any unanticipated discovery until it is recorded and adequately documented and treated. The presentation shall be available to train additional personnel who may join the construction crew after the initial training.

GEO-2. Unanticipated Paleontological Discoveries. If paleontological resources are encountered at any time during project construction, all work shall cease within 50 feet of the discovery until the find can be evaluated by a qualified paleontologist or paleontologically-trained archaeologist. If the discovery is significant or potentially significant, then the following shall apply: data recovery and analysis, preparation of a data recovery report, and accession of recovered fossil material at an accredited paleontological repository (e.g., the University of California's Museum of Paleontology). Significant vertebrate fossils shall be

recovered. A representative sample of significant invertebrate and plant fossils shall be recovered. Work shall not resume in areas determined by the paleontologist as sensitive until the discovery has been evaluated and the recommendations for treatment have been implemented.

With implementation of the above mitigation measures, project-related impacts on paleontological resources would be less than significant.

2.3.8 Greenhouse Gas Emissions

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Discussion: Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Examples of GHGs created and emitted primarily through human activities include fluorinated gases (hydrofluorocarbons and perfluorocarbons) and sulfur hexafluoride. Each GHG is assigned a global warming potential. The global warming potential is the ability of a gas or aerosol to trap heat in the atmosphere. The global warming potential rating system is standardized to CO_2, which has a value of one. For example, CH_4 has a global warming potential of 21, which means that it has a global warming effect 21 times greater than CO_2 on an equal-mass basis. Total GHG emissions from a source are often reported as a CO_2 equivalent (CO_2e). The CO_2e is calculated by multiplying the emission of each GHG by its global warming potential and adding the results together to produce a single, combined emission rate representing all GHGs. On a national scale, federal agencies are addressing emissions of GHGs by reductions mandated in federal laws and Executive Orders. Several states have promulgated laws as a means to reduce statewide levels of GHG emissions. In particular, the California Global Warming Solutions Act of 2006 (AB 32) directed the State of California to reduce statewide GHG emissions to 1990 levels by the year 2020.

AB 32 requires the California Air Resources Board (CARB), in coordination with other State agencies and members of the private and academic communities, to adopt regulations to require the reporting and verification of statewide GHG emissions and to monitor and enforce compliance with this program. Under the provisions of the bill, by 2020, statewide GHG emissions were to be limited to the equivalent emission levels in 1990. On December 12, 2008, CARB adopted its Climate Change Scoping Plan pursuant to AB 32 (CARB, 2008). The Scoping Plan was re-approved by CARB on August 24, 2011, and in November 2017, CARB adopted the final 2017 Scoping Plan: The Strategy for Achieving California's 2030 GHG target. The 2017 Scoping Plan indicates existing and ongoing emission reduction efforts and identifies new policies and actions to accomplish the State's climate goals.

a) and b) **Potentially Significant Impact.** Project-related GHG emissions would result from construction of the Cactus Basins Pipeline and from maintenance activities at the Cactus Basins. The potential effects of proposed GHG emissions are by nature global, and have

cumulative impacts. As individual sources, project GHG emissions are not large enough to have an appreciable effect on climate change. Therefore, GHG emissions estimates will be developed for the project and the impact to climate change will be described in the EIR in the context of cumulative impacts.

2.3.9 Hazards and Hazardous Materials

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
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 or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Discussion: Existing use of hazardous materials at the Cactus Basins includes gasoline and diesel fuel for construction and operations equipment and vehicles. Through the Mosquito and Vector Control Program, San Bernardino County periodically applies mosquito controls at Cactus Basins (SBCH, 2017).

The active ingredients for larval mosquito control are:

- *Bacillus thuringiensis* subsp. *israelensis* (Bti) [bacteria used for biological control]
- *Bacillus sphaericus* (Bs) [bacteria used for biological control]
- Methoprene [a juvenile hormone analog which acts as a growth regulator when used as an insecticide]
- Monomolecular films [surfactant]
- Petroleum distillates [hydrocarbon solvents]
- Spinosad [natural substance made by a soil bacterium that can be toxic to insects]

- Temephos [organophosphate larvicide]

The active ingredients for adult mosquito control are:

- Deltamethrin [pyrethroid ester insecticide]
- Etofenprox [pyrethroid derivative which is used as an insecticide]
- Lambda-Cyhalothrin [pyrethroids insecticide]
- Malathion [organophosphates pesticide]
- Naled [organophosphate insecticide]
- N-octyl bicycloheptene dicarboximide (MGK-264) [synergist enhancing the potency of pyrethroid ingredients]
- Piperonyl butoxide (PBO) [synergist component of pesticide formulations]
- Permethrin [pyrethroid insecticide]
- Prallethrin [pyrethroid insecticide]
- Pyrethrin [pesticides found naturally in some chrysanthemum flowers]
- Resmethrin [pyrethroid insecticide]
- Sumithrin [synthetic pyrethroid insecticide]

a) and b) **Less Than Significant Impact.** Construction of the Cactus Basins Pipeline would require the routine transport, use, and storage of limited quantities of gasoline and diesel fuel for construction vehicle and equipment operation. Maintenance of the basins would also require gasoline and diesel fuel for heavy equipment. Additionally, herbicides such as glyphosate may potentially be used for vegetation management. Mosquito control may include vegetation removal to prevent breeding, biological controls and larvicides as noted above.

SBVMWD would employ standard operating procedures for the routine transport, use, storage, handling, and disposal of hazardous materials related to the construction and operation of public works facilities. The use of fuels and mosquito control compounds are existing conditions at the Cactus Basins. The use of herbicides for vegetation management would be conducted as per manufacturer's recommendations. Therefore, with adherence to the standard operating procedures for hazardous materials use, impacts related to release or accidental exposure to humans or the environment would be less than significant.

c) **Less Than Significant Impact.** Several schools are located near the project areas:

- Eisenhower Senior High School, 1321 N Lilac Avenue, 0.4 miles east of Basin 3A
- La Petite Academy of Rialto Daycare, 620 W Baseline Road, 500 feet east of Basin 3A
- Dunn Elementary, 830 N Lilac Avenue, 700 feet east of Basin 1
- Wilmar Amina Carter High School, 2630 N Linden Avenue, 0.25 miles west of the pipeline alignment

- Trapp Elementary School, 2750 Riverside Avenue, 0.25 miles east of the pipeline alignment

During installation of the pipeline, fuels would be used for construction vehicles and equipment. Spill control prevention BMPs would be implemented during construction of the project. During basin maintenance, hazardous materials use would include fuels for equipment and vehicles and potentially herbicides for vegetation control. Fuel use would be confined to the SBCFCD property. On-site spill control equipment would be present. Herbicides, if employed, would be applied only on the Cactus Basins property and per manufacturer's recommendations. Since hazardous materials would not be used outside of the property of the basins and would be applied in a manner that controls travel off-site, the impact of the proposed project on hazardous materials release within ¼ mile of an existing or proposed school would be less than significant.

d) **Potentially Significant Impact.** Section 65962.5 of the California Government Code requires the California Environmental Protection Agency (CalEPA) to update a list of known hazardous materials sites, which is also called the "Cortese List." The sites on the Cortese List are designated by the State Water Resources Control Board (SWRCB), the Integrated Waste Management Board, and the Department of Toxic Substances Control (DTSC).

Based on a search of hazardous waste and substances sites listed in the DTSC "EnviroStor" database; a search of leaking underground storage tank (LUST) sites listed in the SWRCB "GeoTracker" database; and a search of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit, there were no sites listed on the Cactus Basins or Cactus Basins Pipeline project sites. **Table 2** summarizes existing sites in the project vicinity. SWRCB sites close to the project areas are West Valley Water District Cactus Dump (approximately 200 feet south of Basin 1), Rialto Municipal Airport Property (0.6 miles west of Basin 3), and Owl Rock Products (approximately 900 feet southeast of the pipeline alignment). All of these sites are completed, closed cases. Also close by are DTSC sites - National Construction Rentals (approximately 0.5 miles south of the pipeline alignment) and Denova Environmental (approximately 1.4 miles southwest of the pipeline alignment). These cases are currently in Corrective Action (DTSC, 2020). RWQCB enforcement actions are noted for perchlorate for San Bernardino County Waste (less than 1 mile southwest of the pipeline alignment) and Pyro Spectaculars (1,500 feet southwest of the pipeline alignment).

Table 2
Hazardous Waste Sites in the Project Vicinity

Site	Type	Case Number	Status
Rialto Municipal Airport Property 1451 Linden Avenue Rialto, CA 92376	Cleanup Program Site	2080086	Completed – Case Closed
E&M Aircraft 1480 Linden Avenue Rialto, CA 92376	Cleanup Program Site	8LT8R129	Completed – Case Closed

Site	Type	Case Number	Status
Western Helicopter, Inc. 1670 Miro Way West Rialto, CA 92376	Cleanup Program Site	8LT8R267	Completed – Case Closed
Owl Rock Products 3221 N Riverside Avenue Rialto, CA 92376	LUST Cleanup Site	083602346T	Completed – Case Closed
Arco – Riverside Service 1877 N Riverside Avenue Rialto, CA 92376	LUST Cleanup Site	083601577T	Completed – Case Closed
Smith Food & Drug / Former Shell 115 W Baseline Road Rialto, CA 92376	LUST Cleanup Site	083602208T	Completed – Case Closed
Mobile 116 E Baseline Road Rialto, CA 92376	LUST Cleanup Site	T0607100444	Completed – Case Closed
West Valley Water District – Cactus Dump 855 W Baseline Road Rialto, CA 92377	Cleanup Program Site	T10000002851	Completed – Case Closed
West San Bernardino Water District 855 Baseline West Rialto, CA 92377	LUST Cleanup Site	083603976T	Completed – Case Closed
National Construction Rentals 2824 Locust Avenue Rialto, CA 92377	Soil contamination, perchlorate and arsenic	60001069	DTSC Corrective Action
Ordnance B/U UST Depot Cactus Avenue Rialto, CA 92376	ordnance	80000876	DTSC Military Inactive – Needs Evaluation
Denova Environmental Inc. 2610 N Alder Avenue Rialto, CA 92377	Explosives, munition debris, perchlorate	80001852	DTSC Corrective Action, Land Use Restrictions Only
San Bernardino County Waste 2170 West Stonehurst Drive Rialto, CA 92376	Perchlorate investigation	247988 (facility ID)	RWQCB Enforcement Action
Pyro Spectaculars 3196 North Locust Avenue Rialto, CA 92376	Perchlorate investigation	247993 (facility ID)	RWQCB Enforcement Action

Sources: SWRCB, 2020; DTSC, 2020; RWQCB, 2020
LUST – leaking underground storage tank

Listed on United States Environmental Protection Agency (USEPA) National Priorities List, the Rialto Perchlorate Investigation is associated with properties in the project vicinity. Several military evaluations are also noted in the general project area including those for perchlorate (e.g., Rialto Ammunition Storage Point (Inactive – Action Required, mapped 1.5 miles northeast of the Cactus Basins, SWRCB, 2020)). Due to the distance from the project areas and since the cases are completed and closed, the impact from existing LUST and cleanup

program sites would be less than significant. However, the impact of recharging groundwater at Cactus Basins on the perchlorate in local groundwater would be potentially significant. Existing groundwater conditions and groundwater impact analysis for the proposed recharge project will be detailed in the EIR.

e) **Less Than Significant Impact.** Public airports near Rialto include San Bernardino International Airport (8 miles east of Cactus Basins) and Ontario International Airport (12 miles southwest from Cactus Basins). The closest airport (Rialto Municipal Airport) is located adjacent to the west of the Cactus Basins, but has been closed since 2014. The project does not include new power poles or other tall structures that could pose a risk to airport safety. Pipeline installation would include use of on-road heavy vehicles and construction equipment, as would basin maintenance. However, cranes in excess of 30 feet tall would not be required. Since the project is not located sufficiently near either a private airstrip or public airport and would not result in new tall structures or equipment, impacts on airport safety would be less than significant. Since there are no active airports or airport planning areas within 2 miles of the basins and pipeline alignment, the project would not be located sufficiently near either a private airstrip or public airport to expose people residing or working in the area to experience excessive noise levels. There would be no project-related impacts on noise near an airport/airstrip.

f) **Less Than Significant Impact.** In the event of a disaster, specific evacuation routes in the City of Rialto are determined by the Rialto law enforcement agencies (Rialto, 2010). Although the roadways along the pipeline alignment are not designated emergency evacuation routes, temporary lane closures during pipeline installation could impact the movement of emergency vehicles. To protect public safety, flag workers will be placed at intersections near lane closures to direct traffic. Local emergency response agencies (Rialto Police Department, Rialto Fire Department, California Department of Forestry and Fire Protection) would be notified of the timing and duration of planned lane closures. Since the project site is not designated as an emergency staging area, and since notifications to emergency providers would be conducted as part of the project, the project would have a less than significant impact on emergency access and evacuation plans.

g) **Less Than Significant Impact.** The project areas are not mapped within a Fire Hazard Severity Zone (Rialto, 2010, Exhibit 5.3). The project area is adjacent to Lytle Creek Wash, which is mapped as Very High, High and Moderate Fire Hazard Severity Zones (in both Local and State Responsibility Areas). New habitable structures are not proposed as part of the project. Additionally, the Rialto Fire Department Station 203 is located immediately adjacent to the Cactus Basins on Leiske Drive.

Project construction would require approximately 15 workers. Increased fire risk from the use of welding equipment would not be anticipated since the Cactus Basins Pipeline would be primarily polyvinyl chloride (PVC) and HDPE. Welded steel portions of the pipeline would be constructed according to industry standards. Once the Cactus Basins Pipeline is installed and disturbed areas restored, the risk of fire along the pipeline alignment would be similar to existing conditions. Recharge of imported water in the Cactus Basins would increase the number of days per year that the basins are wetted, a reduction in fire potential. Maintenance

of the basins would include vegetation control, reducing potential fuel for fires. Therefore, the proposed project would have a less than significant impact related to wildland fires.

2.3.10 Hydrology and Water Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☒	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☒	☐	☐	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☒	☐	☐	☐
iii. 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; or	☒	☐	☐	☐
iv. impede or redirect flood flows?	☒	☐	☐	☐
d) In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☒	☐	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☒	☐	☐	☐

Discussion: The project would recharge imported water at the existing Cactus Basins 3/3A and 5. The RWQCB and USEPA have identified groundwater contamination in the Rialto-Colton subbasin, with a portion of the basin designated as a Superfund site. [Superfund sites are polluted locations in the United States designated under CERCLA and requiring a long-term response to clean up hazardous material contaminations.] Groundwater modeling to assess the impact of recharge operations at Cactus Basins is on-going.

a) through e). **Potentially Significant Impact**. In order to assess the impacts of groundwater recharge on the existing perchlorate plume in the Rialto-Colton subbasin, groundwater modeling is being conducted. Predictive modeling runs will be used to evaluate perchlorate concentrations as a result of adding artificial recharge at the Cactus Basins and simultaneously extracting that volume through existing wells. The results of the groundwater modeling and other information on hydrology and water quality will be presented in the EIR.

2.3.11 Land Use and Planning

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion:

a) **Less than Significant Impact.** The Cactus Basins and Cactus Basins Pipeline are located within the City of Rialto. During construction, pipeline installation would limit access in the active area of construction, but once installed, the pipeline would be buried and would not divide an established community. No habitable structures are planned as part of the proposed project. Therefore, impacts on established communities would be temporary and less than significant.

b) **No Impact.** The Cactus Basins are located on San Bernardino County-owned lands within the incorporated area of the City of Rialto. The City of Rialto Land Use Policy Plan (Rialto, 2010, Exhibit 2.2) maps the land use designation of the Cactus Basins as OSRS which applies to open space areas necessary for the protection and preservation of unique areas for such purposes as groundwater recharge and flood control, habitat and wildlife corridor enhancement, the managed production of aggregate resources, agricultural heritage, transmission of energy resources, and public safety. The Cactus Basins Pipeline would be installed in areas designated as Rialto Airport Specific Plan and single family residential (City of Rialto, 2013a). The flow and metering structure would be on land zoned U (Utility).

Since the project would protect the Cactus Basins property from urban encroachment and responsibly manage water resources, the project is consistent with the groundwater recharge purpose of the OSRS land use designation.

Relevant to the Cactus Basins, General Plan Goals and Policies include:

Goal 2-24: Take advantage of opportunities to increase and enhance open spaces throughout Rialto.

- Policy 2-24.2. Landscape the areas surrounding the Cactus Basin recreation fields, water reservoirs, and publicly owned facilities to increase opportunities for low-intensity, passive recreation open spaces and to improve aesthetics.

Goal 2-28: Protect and enhance Rialto's surface waters and groundwater basins.

- Policy 2-28.2: Maximize recharge of local groundwater basins by minimizing impervious surfaces and protecting open space recharge areas.

Once installed, the Cactus Basins Pipeline would be buried, and the land use of the project areas would be the same as existing conditions. With groundwater recharge of SWP water, the project would be consistent with Goal 2-28 and Policy 2-28.2. Since maintenance of the basins would protect passive recreational features currently being constructed by SBCFC, the project would be consistent with Goal 2-24 and Policy 2-24.2. Therefore, construction and operation of the project would have no adverse impacts on land use planning, policies, or regulations.

2.3.12 Mineral Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☒	☐

Discussion: The potential for aggregate mining occurs in Rialto based on its location at the edge of an alluvial fan that extends from the base of the San Gabriel Mountains (Rialto, 2010). Existing aggregate mines are located within Lytle Creek and north of SR-210 along Alder Avenue.

The City of Rialto is the lead agency for the implementation of the Surface Mining and Reclamation Act of 1975 (SMARA), which establishes statewide policies for the conservation and development of mineral lands in California. To prevent incompatible land use development in areas with significant mineral deposits, the Rialto General Plan includes four designations for lands with sand, gravel and crushed rock resources. In areas of regional mining significance, permitted uses include mining, mining support and uses that will not hinder future mining.

a) and b) **Less than Significant Impact.** The Cactus Basins are designated by the State Mining and Geology Board (1987) as containing regionally significant Portland Cement Concrete (PCC) grade aggregated resources (Rialto, 2010, Exhibits 2.6 and 2.7). The basins are mapped by the City of Rialto as Mineral Land Classification MRZ-2, areas where geologic data indicate that significant PCC grade aggregate resources are present. The Upper Cactus Basins were previously mined for gravel (SBCFCD, 2012).

Construction of the proposed project would be limited to installation of the Cactus Basins Pipeline in existing MWDSC right-of-way and city streets. Project operations would include recharge of SWP water, thus increasing the volume of water recharged at Cactus Basins. Project operations would also include basin maintenance, including vegetation management and periodic sediment and debris removal. However, the project would not otherwise alter the basins in a way that would prohibit future use of the site for aggregate mining. Since groundwater recharge at the basins would be consistent with existing site use and would not hinder the potential for future mining in the project area, the proposed project would have a less than significant impact on the loss of availability of a known mineral resource or mineral resource recovery site.

2.3.13 Noise

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	☒

Discussion: Street and freeway (SR-210 and I-10) traffic represent the primary sources of noise in Rialto (Rialto, 2010). Noise contours developed in 2008 for the General Plan (Rialto, 2010) note existing noise levels of 55 to 60 A-weighted decibels (dBA) Community Noise Equivalent Level (CNEL) at Cactus Basins and along the proposed pipeline alignment. The Noise Guidelines for Land Use Planning (Rialto, 2010), allow up to 75 dB CNEL for Open Space – Resources, the designation for Cactus Basins.

Relevant to construction activity, Chapter 9.50.070 of the Rialto Municipal Code, Disturbances from Construction Activity, states:

> No person shall be engaged or employed, or cause any other person to be engaged or employed, in any work of construction, erection, alteration, repair, addition, movement, demolition, or improvement to any building or structure except within the hours provided by this section. The permitted hours for such construction work are as follows:
>
> October 1st through April 30th

Monday—Friday	7:00 a.m. to 5:30 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No permissible hours
State holidays	No permissible hours

May 1st through September 30th

Monday—Friday	6:00 a.m. to 7:00 p.m.
Saturday	8:00 a.m. to 5:00 p.m.
Sunday	No permissible hours
State holidays	No permissible hours

The following exceptions apply:

- Emergency repair of existing installations, equipment, or appliances.
- Such work that complies with the terms and conditions of a written early work permit issued by the city manager or his or her designee upon a showing of a sufficient need and justification for the permit due to hot or inclement weather, the use of an unusually long process material, or other circumstances of an unusual and compelling nature.

Relevant to operations-related noise, controlled hours of operation in Rialto are defined in Section 9.50.050 (Rialto, 2008).

It is unlawful for any person to engage in the following activities other than between the hours of 7:00 a.m. and 8:00 p.m. in all zones:

- Operate or permit the use of powered model vehicles and planes;
- Load or unload any vehicle, or operate or permit the use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within one thousand feet of a residence;
- Operate or permit the use of domestic power tools, or machinery or any other equipment or tool in any garage, workshop, house or any other structure;
- Operate or permit the use of gasoline or electric powered leaf blowers, such as commonly used by gardeners and other persons for cleaning lawns, yards, driveways, gutters and other property;
- Operate or permit the use of privately operated street/parking lot sweepers or vacuums, except that emergency work and/or work necessitated by unusual conditions may be performed with the written consent of the city manager;
- Operate or permit the use of pile driver, steam or gasoline shovel, pneumatic hammer, steam or electric hoist or other similar devices;
- Operate or permit the use of electrically operated compressor, fan, and other similar devices;
- Perform ground maintenance on golf course grounds and tennis courts contiguous to golf courses that creates a noise disturbance across a residential or commercial property line;
- Operate or permit the use of any motor vehicle with a gross vehicle weight rating in excess of ten thousand pounds, or of any auxiliary equipment attached to such a vehicle, including but

not limited to refrigerated truck compressors, for a period longer than fifteen minutes in any hour while the vehicle is stationary and on a public right-of-way or public space except when movement of the vehicle is restricted by other traffic;

- Repair, rebuild, reconstruct or dismantle any motor vehicle or other mechanical equipment or devices in a manner so as to be plainly audible across property lines.

An exemption to the Noise Ordinance 1417 (which adds Chapter 9.50 to the Rialto Municipal Code) is provided for construction, operation, maintenance and repairs of equipment, apparatus or facilities of public works projects or essential public services and facilities.

a) **Less Than Significant Impact.** The closest noise receptors to the construction for the project (the pipeline alignment) are residences located along West Coast Boulevard, West Sunnyview Drive, North Locust Avenue and North Riverside Avenue in Rialto. Temporary use of heavy construction equipment would occur within a few feet of residential property lines and within approximately 25 to 50 feet of structures. During installation of the pipeline, noise would be generated from equipment with noise levels ranging from approximately 74-90 (dBA at a distance of 50 feet) (**Table 3**).

Table 3
Construction Equipment Noise Levels

Equipment	Actual Measured Lmax @ 50 feet (dBA, slow) (samples averaged)
Dump Truck	76
Jackhammer	89
Concrete Saw	90
Backhoe or Track Hoe	78
Front End Loader	79
Concrete Mixer Truck	79
Asphalt Paver	77
Roller Compactor	80
Vacuum Street Sweeper	82
Flat bed truck (delivery trucks)	74

Source: FHA, 2017

Lmax - the maximum sound level during a measurement period or a noise event

Assuming that pipeline installation progresses at a rate of 50 to 150 feet per day, most receptors would experience construction noise for only a few days. At intersections, additional time would be required for excavation for the transition and metering structures, and pipeline connections, but the total exposure to construction noise would be anticipated to be less than one week. Noise would not be continuous as equipment would be used intermittently. Additionally, with an exterior-to-interior reduction of typical buildings of about 25 dB with windows closed (FTA, 2006), noise levels within homes directly adjacent to the construction would be anticipated to be on the order of 50 to 65 dBA.

Construction activity would adhere to Chapter 9.50.070 of the Rialto Municipal Code, regarding the Monday through Saturday acceptable work period. Construction activity would not occur during 7:00 p.m. to 6:00 a.m. when there is greater potential for noise disturbance to

residents. Therefore, noise generation during project construction would be consistent with established codes and noise impacts would be less than significant.

The closest noise receptors to Cactus Basins are the residences located immediately adjacent to the basins fence line on the east side. Houses are generally set back 25 feet or more from the fence line, but some of the homes are within 15 feet. Noise generated during project operation would include vehicles and equipment used for annual maintenance, including tractors, backhoes, loaders, scrapers, dozers, power trimmers, and manual tools. The basins are lower in elevation than the neighboring houses, and maintenance noise would be infrequent (once or twice per year, and at any specific location adjacent to a residence for a few hours at maximum). Cactus Basins maintenance would adhere to the 7:00 a.m. and 8:00 p.m. time restrictions defined in the noise ordinance. Noise generation during project operation would be consistent with established codes and noise impacts would be less than significant.

Since impacts would be temporary at any one receptor location and would adhere to the applicable City of Rialto Municipal Code, noise impacts would be less than significant during project construction and operation. However, mitigation measure NOI-1 would be implemented to further reduce less than significant impacts.

NOI-1 Diesel Equipment Mufflers. Construction and maintenance equipment shall be equipped with properly operating and maintained noise mufflers and intake silencers, consistent with manufacturers' standards. Each piece of equipment shall be individually inspected to ensure proper operation of exhaust and air-intake silencers.

b) **Less Than Significant Impact.** Typical vibration (peak particle velocity (PPV) at 25 feet) produced by construction and maintenance equipment includes small bulldozers at 0.003 (inches/second), loaded trucks at 0.076 inches/second, large bulldozers at 0.089 inches/second, and jackhammers at 0.035 inches/second (FTA, 2006). The Federal Transit Administration (FTA) has published architectural damage criterion for continuous vibrations of 0.20 inch/second (FTA, 2006). Construction equipment necessary to install project facilities would create groundborne vibration and groundborne noise in the immediate area of the construction; vibration would be intermittent and not continuous. Since construction would not exceed the 0.20 inch/second PPV significance threshold for vibration, impacts related to temporary groundborne vibration or noise would be less than significant.

c) **No Impact**. Ontario International Airport is located 12 miles southwest of the Cactus Basins and has an airport influence area that extends as far east as Fontana and unincorporated San Bernardino County, but does not include the project areas. The airport influence area includes the areas in which current or future airport-related safety, noise, airspace protection, or overflight factors may significantly affect land uses or necessitate restrictions on those uses (City of Ontario, 2011). San Bernardino International Airport is located 8 miles east of Cactus Basins. A related airport navigational aid, a non-directional (radio) beacon (NDB) (Petis NDB DB 397) is located approximately 4.5 miles south of the basins. The closest airport (Rialto Municipal Airport) is located adjacent and to the west of the Cactus Basins, but has been closed since 2014. Since there are no active airports or airport planning areas within 2 miles of the basins and pipeline alignment, the project would not be located sufficiently near either a private

airstrip or public airport to expose people residing or working in the area to excessive noise levels. There would be no project-related impacts on noise near an airport/airstrip.

2.3.14 Population and Housing

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a) **Less Than Significant Impact.** A project may induce growth if it would involve construction of housing or large employment centers or would remove barriers to population growth (e.g., a change to a jurisdiction's General Plan and Zoning Ordinance that would allow new residential development to occur). The proposed project does not involve construction of any housing or employment centers, and would not modify the land use or zoning designations for the sites to permit new residential or commercial development. Installation of the Cactus Basins Pipeline would generate some construction jobs, but this would be a temporary effect and would not provide permanent economic growth to the area. Basin maintenance would also require workers, but the limited number and infrequent nature of basin maintenance would have a less than significant impact on employment in Rialto.

A project may also be considered growth-inducing if it increases the capacity of infrastructure in an area in which the public service currently meets demand. The proposed project would recharge the groundwater basin to increase the reliability of local water supply. However, the project would not add new potable water wells or distribution systems, or add connections to new users. The project would not increase potable water delivery within the SBVMWD service area. Therefore, the proposed project would not significantly impact population growth.

b) **No Impact.** No habitable structures would be constructed as part of the project, and no existing housing would be removed. Therefore, the project would not displace existing people or housing and there would be no impacts on housing from construction and operation of the project.

2.3.15 Public Services

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Discussion:

i – v) **No Impact.** New habitable structures are not proposed as part of the project. Similarly, the project would not induce population growth since it would not add new potable water wells or distribution systems, or add connections to new users. Neither the limited number of construction workers required to install the Cactus Basins Pipeline (approximately 15), nor the operations-related maintenance workers (approximately 10) would generate substantial population growth or create the need for new or expanded public services. A fire station (Rialto Fire Station 203) is located immediately adjacent to the Cactus Basins at 1550 N. Ayala Drive. Construction of the pipeline and maintenance of the basins would not block access or otherwise impact the fire station. Therefore, there would be no project-related impacts regarding new or physically altered fire, police, schools, parks, or other public facilities.

2.3.16 Recreation

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion: Jerry Eaves Park is located immediately adjacent (to the west) of the Cactus Basins. Located at 1485 N. Ayala Drive, the park has soccer fields, picnic shelters, and a children's playground. The Cactus Basins Pipeline alignment does not directly pass by recreational facilities, but Fergusson Park is located approximately 0.5 miles west of the Cactus Basins Pipeline alignment. Fergusson Park includes a skate park, ball fields, tennis courts and picnic areas.

The Rialto General Plan (2010) notes that low-intensity, passive recreation and landscaping around the Cactus Basins' perimeter are encouraged to increase active recreation space. Consistent with this objective, SBCFCD's EIR (2012) noted a bicycle/walking trail around the perimeter of the basins.

a) **Less Than Significant Impact.** New habitable structures are not proposed as part of the groundwater recharge project. The limited number of construction workers required to implement the project (approximately 15) would not generate substantial population growth or create the need for new or expanded parks. Operation of the project would increase the volume of water present in the basins but would not adversely impact use of a perimeter bicycle/walking trail if one is constructed. Therefore, the project would have a less than significant impact related to increased use of neighborhood or regional parks or other recreation facilities.

   However, construction of project facilities would require partial closure of the roads in the immediate vicinity of the Cactus Basins Pipeline alignment to protect public safety. There are no recreational facilities directly accessed off the MWDSC right-of-way, or the portions of North Riverside Avenue and North Locust Avenue where the transition and metering structures would be installed. During structure construction, one lane of North Locust Avenue and two lanes of North Riverside Avenue would be blocked along approximately 60 feet for approximately one week. Prior to the start of construction, residents along the affected roadways would be notified of the construction schedule. Additionally, flagpeople would be used at closures for traffic safety. Since recreational facilities could be accessed via other roadways, temporary lane closures would have a less than significant impact on recreation.

Operation of the project would increase the volume of water present in the basins, a beneficial impact on aesthetics of the site and therefore on bicyclers and walkers using any future Cactus Basins perimeter trails. Maintenance activities would result in minor truck traffic (approximately 10 trucks per year), a less than significant impact on recreational access in the project area.

b) **No Impact.** The project does not include the construction of recreational facilities or generate population growth that would require the construction or expansion of recreational facilities. Therefore, there would be no impacts related to the construction or expansion of recreational facilities.

2.3.17 Transportation

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Discussion: Construction of the project would impact the following roadways:

- Cedar Avenue – a two-lane north-south arterial, approximately 32 feet wide with street parking on both sides of the street
- West Summit Avenue – a two-lane east-west arterial, approximately 32 feet wide
- North Apple Avenue – a two-lane northwest-southeast arterial, approximately 32 feet wide with street parking on both sides of the street
- North Riverside Avenue – a three-lane northwest-southeast arterial, approximately 40 feet wide

Additionally, materials and equipment would be brought to the project site, likely via I-10, SR-210, I-15 and I-215. The specific routes for equipment and vehicles would be dependent on the Construction Contractor selected for the work, and their fleet location.

a) **No Impact**. San Bernardino County Transportation Agency (SBCTA) is the regional transportation agency in the project area. The Congestion Management Plan (CMP) (SANBAG, 2016) is the principal element of the Congestion Management Process. The CMP designates level of service standards, identifies performance measures of the transportation system, develops a 5-year capital improvement program, provides a method to analyze the impacts of land use decisions, and provides guidance for travel demand management ordinances. The project would impact area roadways temporarily during pipeline installation and infrequently for the mobilization of maintenance equipment. However, since the project does not include new transportation systems or the permanent alteration of land use or roadways, the project would not conflict with the CMP.

   City of Rialto plans and policies related to transportation include: the General Plan (2010), the Active Transportation Plan (ATP, 2020), and the Traffic Impact Analysis Report Guidelines and Requirements (2013b).

General Plan. Within the City of Rialto and near the project area, freeways (I-10 and SR-210) and select arterials (Base Line Road, Casmalia Avenue, Ayala Drive, Riverside Avenue, Locust Avenue and Alder Avenue) have been designated as truck routes to ensure appropriate road construction and to protect residential neighborhoods (Rialto, 2010). Materials deliveries and hauling for soil and debris disposal related to the project would adhere to these truck routes. Therefore, the project would be consistent with transportation policies detailed in the General Plan.

Active Transportation Plan. The City of Rialto 2020 ATP outlines actions to support and increase bicycling and walking in the City. The ATP includes an inventory of existing bike and pedestrian infrastructure, identifies deficiencies, and prioritizes improvements. After pipeline installation is complete, roadways impacted by the project would be repaved and striped. The project would have no impact on bicycle paths, lanes, routes or bikeways as recommended in the ATP. Similarly, the project would not impact recommended pedestrian design features described in the ATP. Additionally, the project would not impact transit stops since none are located along the proposed pipeline alignment.

The City of Rialto Traffic Impact Analysis Report Guidelines and Requirements (2013b). This document specifies impact assessment to be conducted for various types of development projects. Projects noted as potentially exempt include any proposed use that can demonstrate, based on the most current Trip Generation Manual, published by the Institute of Traffic Engineers (ITE), or other approved trip generation data, that there will be less than 50 vehicle trips during peak hours.

Once transported to the site, most construction equipment (backhoe, compactor, etc.) would remain in place for the duration of the construction period, and then be demobilized. Construction necessary for implementation of the recharge project would temporarily increase vehicle miles traveled by:

- The approximately 15 construction workers that would travel to the project site for the 4-6 months of the pipeline construction period.
- Truck trips for materials deliveries, soil hauling, and construction debris disposal. Assuming 10 cubic yards per truck load, and a 4 to 6-month construction period, on the order of eight truck trips would be required per day.

With an estimated 23 trips per day (construction workers commuting to the site and haul trucks), traffic related to project construction would be substantially less than 50 peak hour trips.

Overall, traffic related to construction and operation of the project would not conflict with any goals of the relevant transportation plans for the project area. The project does not include new transportation systems and would have no impact on transportation planning.

b) **Less Than Significant Impact.** CEQA Guidelines Section 15064.3 describes considerations for evaluating the transportation impacts of projects and states that vehicle miles traveled (the amount and distance of automobile travel attributable to a project) is generally the most appropriate measure of transportation impacts. Since the proposed project is neither a land development project nor a transportation project that would permanently increase vehicle miles

traveled in the project area, vehicle use for construction is considered. With an estimated 23 trips per day (construction workers commuting to the site and haul trucks), traffic related to project construction would be substantially less than 50 peak hour trips. Based on the estimated number of workers, pipe and bedding material deliveries, soil hauling and debris removal hauling, the temporary increase in vehicle miles traveled would be minor and less than significant.

Operation of the project would include annual maintenance events that would last a few weeks and have limited and temporary impacts on transit systems. Periodic but infrequent hauling of sediment and debris would occur based on the schedule for basin maintenance, and would add a limited number of dump trucks to area roadways. Note that the additional recharge of SWP water would not be anticipated to substantially add sediment or debris, the vast majority of which enters the basins with stormwater flows, as under existing conditions. Therefore, project-related impacts on vehicle miles traveled during operations would be less than significant.

c) **Less Than Significant Impact.** The project does not include any new roadway design features. However, during pipeline installation, one lane of traffic in North Locust Avenue and two lanes of traffic in North Riverside Avenue would be closed for a roadway length of approximately 60 feet, for approximately one week. A Traffic Control Plan would be prepared for the project to detail lane closures, placement of barricades and safety lights, positioning of flagpersons, and covering of open trenches during non-work periods with a metal plate. Where construction would temporarily block residential or business driveways, coordination with the homeowners/owners would be conducted. With implementation of a Traffic Control Plan, the planned lane closures on the roadways along the pipeline alignment would have a less than significant impact on roadway hazards.

d) **Less Than Significant Impact.** Construction of the Cactus Basins Pipeline would temporarily close one lane of traffic in North Locust Avenue and two lanes of North Riverside Avenue. Emergency vehicles would have restricted access on those roadways for the duration of the lane closures – estimated at approximately one week. As previously described, a Traffic Control Plan would be implemented during construction. Emergency response providers (City of Rialto Police and Fire Departments) would be notified in advance of the construction schedule, location, and lane closures.

Additionally, the City of Rialto Department of Public Works posts Traffic Advisories on its website (http://www.yourrialto.com/). These notices specify lane closures, construction locations and schedules and provide road detour information. SBVMWD would notify the City of Rialto prior to the start of pipeline installation to confirm the details of necessary Traffic Advisories related to project construction.

Overall, the impact of lane closures and the approximately 23 additional construction-related trips per day would have a less than significant impact on emergency access.

Operation of the project would require the infrequent mobilization of heavy construction equipment to the Cactus Basins, approximately once or twice per year. No roadway closures or impacts to emergency access would occur.

2.3.18 Tribal Cultural Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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	☐	☒	☐	☐
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.	☐	☒	☐	☐

Discussion: As described in Section 2.3.5, significant cultural resources are not known or expected at the Cactus Basins site or along the pipeline alignment. However, mitigation measures have been identified in the event that previously unknown resources are identified during project construction (CUL-1, CUL-2, and CUL-3).

On September 27, 2021, a search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC) was requested. A response letter was received via email from the NAHC on November 17, 2021, stating that the results of the SLF search were positive and that the Gabrieleno Band of Mission Indians – Kizh Nation should be contacted for more information. The NAHC also provided a list of Native American tribes who are traditionally or culturally affiliated with the geographic area of the project, and may have direct knowledge of Native American cultural resources in the project site.

Consultation with Native American organizations and individuals was initiated to satisfy the requirements of AB 52. On January 20, 2022, SBVMWD sent notification letters via certified mail and follow-up emails to the 17 Native American contacts provided by the NAHC, to request information regarding local knowledge about cultural resources, traditional gathering areas, or sacred lands in or near the project site. On February 3, 2022, the Tribal Historic Preservation Office of the Agua Caliente Band of Cahuilla Indians indicated that a records check of their cultural registry revealed that the proposed project is not located within the Tribe's Traditional Use Area. Therefore, they indicated that they are deferring to the other tribes in the area and concluding their consultation efforts. Additional input received from other tribes will be included in the EIR.

a) and b). **Less than Significant with Mitigation Incorporated**. Since archaeological resources are not known for the Cactus Basins or pipeline alignment project sites, and since project construction would be limited to city streets, project construction and operation would not be anticipated to impact Tribal Cultural Resources. However, mitigation measures CUL-1 through CUL-3 shall be implemented to further protect unknown cultural resources. As mitigated, the project would have a less than significant impact on California Register of Historic Resources (CRHR)-listed or eligible resources, or on resources significant to a California Native American tribe.

2.3.19 Utilities and Service Systems

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☒	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statues and regulations related to solid waste?	☐	☐	☒	☐

Discussion: The Cactus Basins Pipeline would be installed in a MWDSC right-of-way and local streets – North Locust Avenue and North Riverside Avenue. Existing utilities present near the proposed transition and metering structures include water mains, water laterals, sewer mains, sewer laterals, and communication lines.

a) **Potentially Significant Impact.** The objective of the project is to recharge imported water at the Cactus Basins to improve the reliability of the local potable water supply. The impact of that recharge on the existing contaminant plume in the Rialto-Colton subbasin is potentially significant and will be detailed in the EIR. As noted in this Initial Study, project-related impacts on air quality, greenhouse gases, and biological resources will also be described in the EIR.

b) **Less than Significant Impact.** The project would increase the volume of imported water recharged to the Rialto-Colton groundwater subbasin, a beneficial impact on water supplies. Imported water would be purchased by SBVMWD as available. The project does not include residential, commercial, or industrial development which would create additional water demand. Therefore, project-related impacts on water supplies would be less than significant.

c) **Less than Significant Impact**. Habitable structures are not present on the project site and none are proposed as part of the project. The limited number of construction workers (approximately 15) required to implement the project would not create the need for new or expanded wastewater service. Wastewater generated during constructed by temporary workers and for basin operations would be treated locally in compliance with the requirements of the

Santa Ana Regional Water Quality Control Board. The project would have a less than significant impact on wastewater treatment facilities.

d) and e) **Less Than Significant Impact**. Installation of the Cactus Basins Pipeline would require disposal of excess soils and construction debris. Excess excavated soils (approximately 300 cubic yards) would be transported to a CDI processing facility or permitted landfill. Construction debris from pipeline installation (approximately 25 cubic yards of asphalt) would be transported to a CDI processing facility, such as SCOR Industries Medium Volume CDI in Rialto (2321 South Willow Avenue, approximately 7 miles south of the pipeline alignment). Materials accepted at this facility include asphalt, concrete, bricks, rock, dirt, sand, cardboard, metals, wood, roofing, carpet, and drywall. The limited volumes of solid waste generated by construction workers would be disposed at a permitted landfill (e.g., Mid-Valley Sanitary Landfill at 2390 Alder Ave, Rialto, approximately 1.2 miles southwest of the pipeline alignment). Since anticipated wastes would be processed and disposed at local facilities properly permitted by the County of San Bernardino Department of Public Health, impacts related to solid waste disposal would be less than significant.

2.3.20 Wildfire

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, or other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion: Although the project sites are not mapped within a fire hazard severity zone, areas approximately 1.2 miles north of the Cactus Basins, and generally north of Riverside Avenue, are designated as within a very high fire hazard severity zone (Rialto, 2010 Exhibit 5.3).

a) **Less than Significant Impact.** In the event of a disaster, specific evacuation routes in the City of Rialto are determined by the Rialto law enforcement agencies (Rialto, 2010). Although the roadways along the pipeline alignment are not designated emergency evacuation routes, temporary lane closures during pipeline installation could impact the movement of emergency vehicles. To protect public safety, flag workers will be placed at intersections near lane closures to direct traffic. Local emergency response agencies (Rialto Police Department, Rialto Fire Department, California Department of Forestry and Fire Protection) would be notified of the timing and duration of planned lane closures. Since the project site is not designated as an emergency staging area, and since notifications to emergency providers would be conducted as part of the project, the project would have a less than significant impact on emergency access and evacuation plans.

b) **Less than Significant Impact.** Once installed, the proposed Cactus Basins Pipeline would be buried and the road surface restored; there would be no impacts on wildfire hazards. As part of operations and maintenance, vegetation at Cactus Basins would be removed and managed. The on-going reduction in vegetation would have a beneficial impact on reducing fire risk at the site, as would the greater volumes of water present in the basins with the recharge project. New habitable structures are not proposed as part of the project and none are present on the project site. Therefore, the project would not expose project occupants to pollutant

concentrations from a wildfire or the uncontrolled spread of wildfire. Overall, impacts on wildfire risks would be less than significant.

c) **Less Than Significant Impact**. Construction for the proposed project includes installation of a buried water conveyance pipeline and maintenance of existing recharge basins. No new roads, fuel breaks, emergency water sources, power lines or utilities other than the Cactus Basins Pipeline are proposed. Since the buried pipeline would not increase fire risk and basin maintenance would manage vegetation thus reducing fuel for fires, the impact from new infrastructure on fire risk would be less than significant.

d) **No Impact**. Habitable structures are not present on the project sites and none are proposed as part of the project. Landslide and post-fire slope instability are not hazards identified for the project area, and the pipeline proposed for the project would be buried. Therefore, the project would not expose people or structures to significant wildfire risks.

2.3.21 Mandatory Findings of Significance

	Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially 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, substantially 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?	☒	☐	☐	☐
b)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☒	☐	☐	☐
c)	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.)?	☒	☐	☐	☐
d)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Discussion:

a) **Potentially Significant Impact.** Cultural resources are not known for the project sites and mitigation measures have been identified to protect resources in the unlikely event they are discovered during construction. Therefore the project would not eliminate important examples of the major periods of California history or prehistory. Since impacts to biological resources from project construction and operation have not yet been assessed, they are considered potentially significant and will be described in the EIR.

b) **Potentially Significant Impact**. The objective of the project is to increase the reliability of local groundwater resources in the SBVMWD service area, a beneficial long-term goal. Since impacts to groundwater remediation efforts in the Rialto-Colton subbasin have not yet been assessed, they are considered potentially significant and will be described in the EIR.

c) **Potentially Significant Impact**. Other past, present or probably projects that could have cumulatively considerable impacts with the proposed project have not been described. Since cumulative impacts have not yet been assessed, they are considered potentially significant and will be described in the EIR.

d) **Potentially Significant Impact.** The objective of the project is to increase the reliability of local groundwater resources in the SBVMWD service area, a beneficial impact on human beings. However, since impacts of the project on air quality, greenhouse gases, hydrology, and

water quality have not yet been assessed, impacts to human beings are considered potentially significant and will be described in the EIR.

Section 3
References, Abbreviations, and Report Preparation

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3.2 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ac	acre
af	acre-feet
AFY	acre-feet per year
amsl	above mean sea level
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
ASCE	American Society of Civil Engineers
ATP	Active Transportation Plan
BMPs	best management practices
BRTR	Biological Resources Technical Report
Bs	*Bacillus sphaericus*
BTAC	Basin Technical Advisory Committee
Bti	*Bacillus thuringiensis* subsp. *israelensis*
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDI	Construction, Demolition, and Inert Debris
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH_4	Methane
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPHI	California Point of Historical Interest
CRHR	California Register of Historic Resources
dBA	A-weighted decibels

DCAP	Devil Canyon Azusa Pipeline
DTSC	Department of Toxic Substances Control
DWR	(California) Department of Water Resources
du	dwelling unit
EIR	Environmental Impact Report
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FHA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	greenhouse gas
HDPE	high-density polyethylene
ICBO	International Conference of Building Officials
IRUWMP	Integrated Regional Urban Water Management Plan
IS	Initial Study
ITE	Institute of Traffic Engineers
Lmax	maximum sound level during a measurement period or a noise event
LUST	Leaking Underground Storage Tank
MWDSC	Metropolitan Water District of Southern California
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NDB	non-directional (radio) beacon
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OSRS	Open Space-Resources
PBO	piperonyl butoxide
PCC	Portland Cement Concrete
PM	particulate matter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
PM_{10}	particulate matter 10 microns or less in diameter
PPV	peak particle velocity
PVC	polyvinyl chloride

RCP	Reinforced Concrete Pipe
RWQCB	Regional Water Quality Control Board
SAR	Santa Ana River
SAWPA	Santa Ana Watershed Project Authority
SBC	San Bernardino County
SBCFCD	San Bernardino County Flood Control District
SBCH	San Bernardino County Health
SBCTA	San Bernardino County Transportation Agency
SBVMWD	San Bernardino Valley Municipal Water District
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SR	State Route
SVP	Society of Vertebrate Paleontology
SWP	State Water Project
SWRCB	State Water Resources Control Board
UCMP	University of California Museum of Paleontology
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
WEF	Water Education Foundation

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