

4.10 HYDROLOGY AND WATER QUALITY

This section evaluates the potential impacts to hydrology and water quality conditions from implementation of the Specific Plan. The analysis in this section is based in part on the following studies:

- *Menifee Valley Center Biological Resources and MSHCP Consistency Report*, Rocks Biological Consulting, January 2022
- *Menifee Valley Project Jurisdictional Delineation Report*, Rocks Biological Consulting, July 2019
- *Preliminary Hydrology Analysis Menifee Valley Project*, City of Menifee, Hunsaker & Associates, November 2021
- *Project Specific Water Quality Management Plan for the Menifee Valley Specific Plan*, Hunsaker & Associates, October 2021
- *Preliminary Geotechnical Evaluation and Design Recommendations for the Proposed Approximately 580-Acre "Menifee Valley" Residential Development*, City of Menifee, California, LGC Geotechnical, Inc., May 2018

Complete copies of these studies are included in **Appendices D-1, D-3, I-1, I-2, and G-1** of this Environmental Impact Report (EIR).

4.10.1 Scoping Process

The City of Menifee (City) received ten comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to **Appendix A-1** of this EIR. One of the comment letters, from Riverside County Flood Control and Water Conservation District, included the following comments related to hydrology and water quality issues:

- The requirement of an encroachment permit from the District if any work involves District right of way or easement and request to list the District as a Responsible Agency in the Final EIR to help expedite the encroachment permit application process.
- Requirement of additional regulatory permits if work will occur within potentially jurisdictional areas such as a Streambed Alteration Agreement and/or permits from United States Army Corps of Engineers and the Regional Water Quality Control Board.
- Consistency with the Western Riverside County Multiple Species Habitat Conservation Plan.
- Consideration of any potential impacts to the District's Romoland Master Drainage Plan facilities.

- Discussion of the District accepting ownership of certain storm drain facilities that are constructed as part of the project.

4.10.2 Methodology

The proposed Project's impacts to hydrology and water quality are evaluated based on the proposed Project's adherence to local, regional, State, and federal standards; the proposed land uses and project design; changes in pre- and post-project storm water flows; and proposed best management practices (BMPs) for control of surface runoff and reduction of pollutants in storm water runoff.

4.10.3 Existing Environmental Setting

4.10.3.1 Surface Waters and On-Site Drainage

The proposed Project is located within the Lower San Jacinto River Watershed and the Perris Valley-San Jacinto River and San Jacinto Valley Subwatersheds, which are part of the larger Santa Ana River Watershed (Refer to **Figure 4.10-1: Watersheds and Subwatersheds**). The headwaters of the San Jacinto River originate in the San Jacinto Mountains and flow through the San Bernardino National Forest. The San Jacinto watershed is comprised primarily of open space (67%), followed by residential use (25%), agriculture (5%), and commercial/industrial use (3%). The Lower San Jacinto River Watershed encompasses 364 square miles, and the Perris Valley Channel and Salt Creek Channel are its major tributaries. The Lower San Jacinto River Watershed outlets at Lake Elsinore, located approximately 11.5 miles southwest of the Project site.¹

For planning purposes, the Santa Ana Regional Water Quality Control Board (RWQCB) uses a watershed classification that divides surface waters into hydrologic units (HUs), areas, and subareas. As designated by the Santa Ana RWQCB, the Project site is located in the San Jacinto Valley HU, the Perris Hydrologic Area, and the Perris Valley and Winchester Hydrologic Subareas (refer to **Figure 4.10-2: Hydrologic Units, Areas, and Subareas**).

The Project site is largely undeveloped and consists primarily of agricultural land and associated unpaved roadways along the perimeter of the Project site and bisecting the site in an east/west and north/south direction. The Project site has most recently been used for growing grain crops such as wheat and barley using standard irrigation and watering practices and previous crops grown on site included potatoes and pumpkins. There is an existing water pipe that distributes recycled water to irrigate the property, and there is existing irrigation piping throughout the Project site. There are no structures, paved roads, or other improvements on the Project site. On-site drainage patterns trend east to west, as elevation slightly decreases from east to west.²

¹ Rocks Biological Consulting. 2022. *Meniffee Valley Center Biological Resources and MSHCP Consistency Report*. January.

² Ibid.

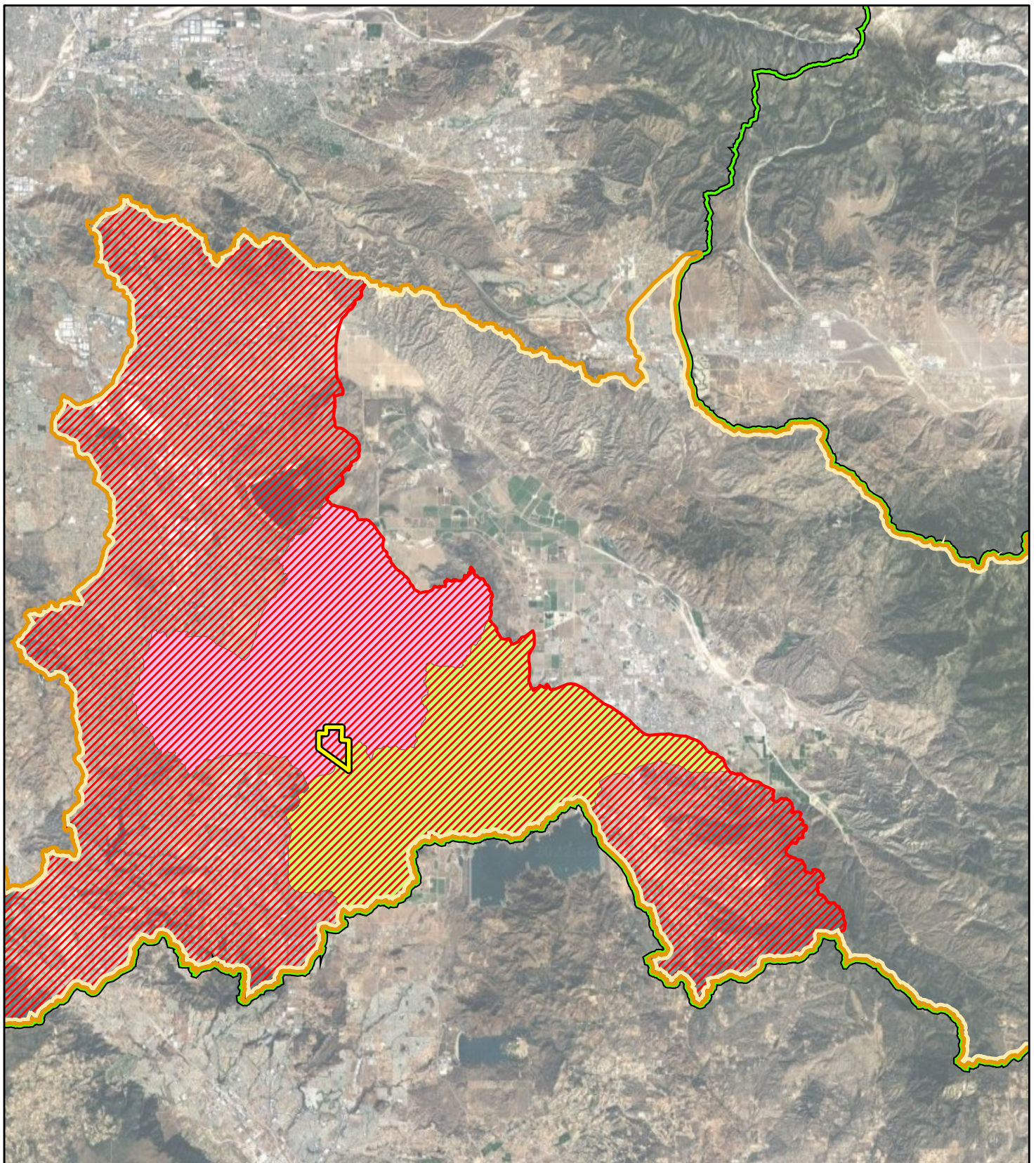


FIGURE 4.10-1

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LEGEND

-  Project Location
-  Basin: Santa Ana
-  Subbasin: San Jacinto
-  Watershed: Lower San Jacinto River

Subwatershed

-  Perris Valley-San Jacinto River
-  San Jacinto Valley

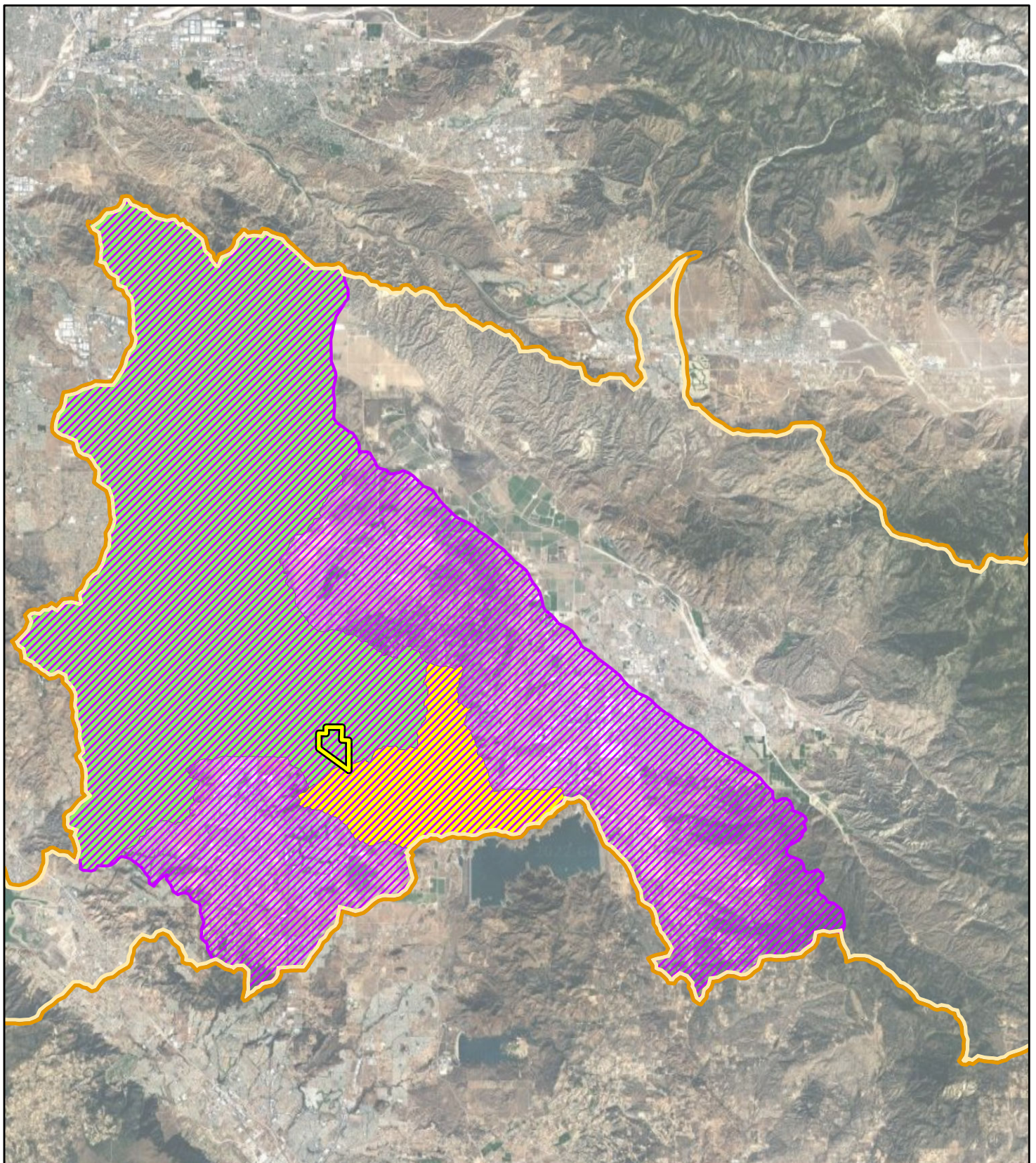


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SOURCE: Google Imagery (2022);USGS, WBD (12/2018)
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Menifee Valley Specific Plan
Watersheds and Subwatersheds

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LEGEND

-  Project Location
-  Hydrologic Unit: San Jacinto Valley
-  Hydrologic Area: Perris

Hydrologic Subarea

-  Perris Valley
-  Winchester



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SOURCE: Google Imagery (2022);USGS, WBD (12/2018)

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FIGURE 4.10-2

Menifee Valley Specific Plan
Hydrologic Units, Areas, and Subareas

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Hydrologic features on the Project site include a northeast-west trending ephemeral feature within the northern portion of the Project site (Feature 1), an east-west trending ephemeral feature that bisects the center of the Project site from north to south (Feature 2), and three man-made ditches created for agricultural and road drainage purposes (Ditch 1, Ditch 2, and Ditch 3).³ Ephemeral streambeds on site are highly disturbed by on-site agricultural activities but still show signs of intermittent water flow. On-site hydrologic features appear to be fed primarily by direct precipitation, and several culverts from adjacent roads and developed areas outlet into the on-site features. There is a total of approximately 10,035 linear feet of non-wetland hydrologic features and 0.03 acre and 120 linear feet of wetland area on site. Each hydrologic feature is described in greater detail below.⁴

Feature 1 is approximately 2 to 15 feet wide and initiates on site at a box-culvert crossing at State Route 74 (SR-74) along the northern boundary of the Project site and flows in a southwesterly direction at a 0- to 1-percent slope until it meets the western project boundary and flows south into a storm drain near Menifee and McLaughlin Roads. Feature 2 is approximately 5 to 20 feet wide, and it includes a small area at the eastern edge of the Project site with wetland features where the culvert adjacent to the Heritage High School outlets. Feature 2 initiates on the east side of the Project site and receives flows from two culverts, one from under the adjacent Heritage High School and one along Briggs Road. Feature 2 flows west through the Project area, onto McLaughlin Road, and into a set of storm drain inlets along Menifee Road. Similar to Feature 1, Feature 2 is unvegetated and surrounded by planted grain crops and weedy annual plant species.⁵

Ditch 1 is located along the northern boundary of the Project site and drains east to west. It is approximately 2 feet wide and is earth lined for approximately 365 feet before flowing into a culvert under a dirt road and continuing west as a concrete-lined ditch. Ditch 2 initially drains from east to west and then makes a 90 degree turn and flows to the south along the western boundary of the Project site. Ditch 2 is fed by drainage from the road and development north of the Project site via two culverts. Ditch 2 is 2 to 4 feet wide and lacks a clear or natural bed and bank and has swale-like characteristics. Ditch 3 is located along the western boundary of the Project site that drains north to south and flows into a culvert located at Case and Menifee Roads. Ditch 3 is approximately 2 feet wide and lacks a clear or natural bed and bank and has swale-like characteristics.⁶

The Project site is part of the Riverside County Flood Control and Water Conservation District Romoland Master Drainage Plan (MDP) watershed area. Flows from the vicinity of the Project area end up in the Juniper Flats and Briggs Detention Basins that occur east of the Project area and were constructed as part of the MDP. The basins intercept surface water drainage that historically flowed onto the Project site. The MDP also includes underground storm drains Line 1 and Line A (a portion of which runs under the Project site) designed to carry watershed runoff toward the San Jacinto River.⁷

³ Ibid.

⁴ Rocks Biological Consulting. 2019. *Menifee Valley Project Jurisdictional Delineation Report*. July.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

This line conveys the off-site flow from the northeasterly area to the Briggs Road Detention Basin, on the east boundary of the Project site, where storm water runoff is temporarily stored and the peak rate of runoff is decreased to a maximum of 640 cubic feet per second (cfs) for a 100-year storm event to prevent excessive velocity and downstream erosion. Romoland Line A is a major outlet drainage system for the Briggs Road Detention Basin and runs through the Project site from the Briggs Road Detention Basin on the east boundary of the Project site toward Menifee Road on the west boundary of the Project site, dividing the site almost in half. Line A has been designed to accept the developed flow for low residential land use from the Project site and off-site area. Feature 1 and Feature 2, which are described above, drain into inlets along Menifee Road on the western project boundary and then drain into Line A. ⁸ **Figure 4.10-3: Existing On-Site Drainage Areas** shows the existing on-site hydrology and drainage areas.

4.10.3.2 Surface Water Quality

Receiving waters include Reaches 1, 2 (Canyon Lake), and 3 of the San Jacinto River, and Lake Elsinore. Canyon Lake is listed on the 2018 303(d) list as impaired for nutrients. Lake Elsinore is listed on the 2018 303(d) list for Polychlorinated biphenyls (PCBs), Organic Enrichment/Low Dissolved Oxygen, Nutrients, Toxicity, and Dichlorodiphenyltrichloroethane (DDT).⁹ Reaches 1 and 3 of the San Jacinto River are not listed for any impairments on the 2018 303(d) list.

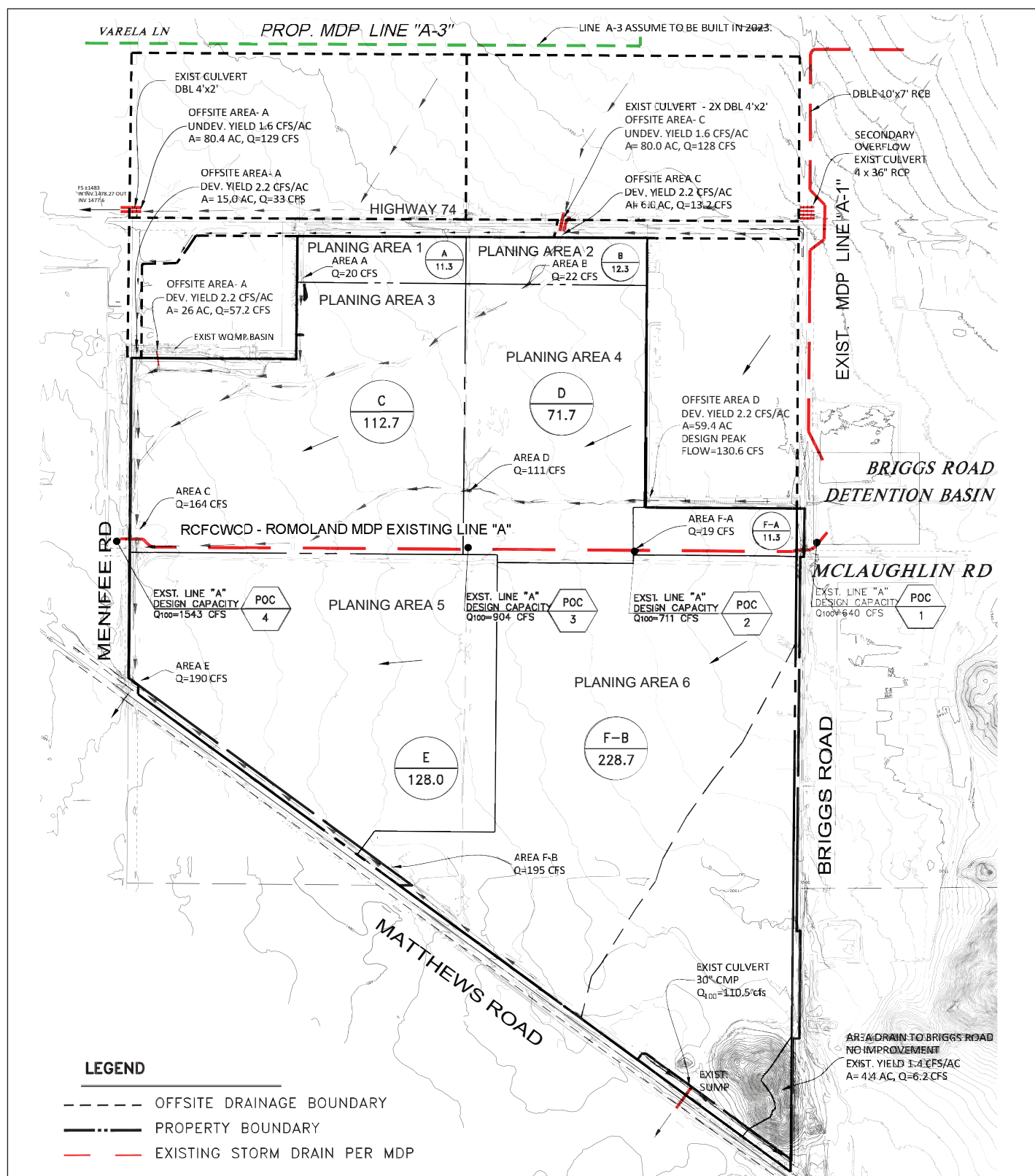
4.10.3.3 Groundwater Basin

Menifee and the Project site are located within the boundary of the San Jacinto Groundwater Basin. The San Jacinto Groundwater Basin underlies the San Jacinto, Perris, Moreno, and Menifee Valleys in western Riverside County. Approximately 39 percent of the basin is adjudicated under three separate adjudications, 2 percent of the basin is under the jurisdiction of the federal government, and the remaining 59 percent of the basin lies within the jurisdictional boundaries of the Eastern Municipal Water District (EMWD).¹⁰ EMWD also has an adjusted base production right of 7,303 acre-feet from the Hemet/San Jacinto area which is adjudicated by the Hemet-San Jacinto Watermaster and located in the eastern portion of EMWD's service area.

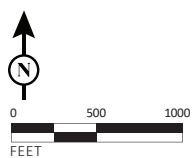
⁸ Hunsaker & Associates. 2021. *Preliminary Hydrology Analysis Menifee Valley Project, City of Menifee*. November.

⁹ State Water Resources Control Board. 2018 California Integrated Report (Clean Water Act Section 303(d) List and 305 (b) Report). https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html (accessed June 24, 2022).

¹⁰ Eastern Municipal Water District. 2021. *Groundwater Sustainability Plan for the San Jacinto Groundwater Basin*. September.



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SOURCE: Hunsaker & Associates Irvine, Inc., 2021

Menifee Valley Specific Plan
Existing On-Site Drainage Areas

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The surface area of the basin is approximately 158,500 acres or 248 square miles, with average annual rainfall over the basin ranging from approximately 10 to 12 inches. The basin boundaries are formed by the San Jacinto Mountains on the east, the San Timoteo Badlands on the northeast, the Box Springs Mountains on the north, lower-relief hills on the west (e.g., Gavilan Peak and Steele Peak), and the Santa Rosa Hills and Bell Mountain on the south. The bedrock hills surrounding the basin prevent hydraulic connection with other nearby groundwater basins; therefore, there is no significant groundwater flow between other nearby groundwater basins. Alluvial deposits from the early Pleistocene through the late Holocene compose the primary water bearing sediments in the basin. Depth to bedrock ranges from near ground surface adjacent to internal and boundary hills and mountains to depths of greater than 2,000 feet below land surface in the northeastern part of the basin. The bottom boundary of the basin is made up of intrusive crystalline bedrock and isolated areas of Pre-Cretaceous and Cretaceous metamorphic formations of sedimentary and volcanic origin.¹¹

The estimated groundwater storage capacity of the San Jacinto Basin is 3,070,000 acre feet, and in 1975 the calculated groundwater in storage was 2,700,000 acre feet.¹² EMWD's groundwater model estimates that groundwater in storage increased by an average rate of approximately 15,600 acre feet per year between water years 1985 and 2012.¹³ Natural recharge to the basin is primarily from percolation of flow in the San Jacinto River and its tributary streams, with some minimal recharge from infiltration of rainfall on the valley floor. Natural recharge is augmented by spreading of State Water Project (SWP) and reclaimed water through infiltration ponds in the upper reaches of the San Jacinto River. Percolation of water stored in Lake Perris has been an additional source of recharge since construction of the lake in the 1970s, and reclaimed water percolates through several storage ponds distributed throughout the valley. In some years, artificial recharge exceeds natural recharge, particularly in years with low precipitation.¹⁴

According to the *Preliminary Geotechnical Evaluation* prepared for the proposed Project,¹⁵ groundwater was encountered between approximately 33 and 40 feet below existing grade. This information is generally consistent with groundwater data collected during previous site explorations in 2004, which found groundwater depths to be between approximately 37 and 68 feet below existing grade. In general, groundwater levels fluctuate with the seasons, and local zones of perched groundwater may be present within the near-surface deposits due to local seepage or during rainy seasons.

4.10.3.4 Groundwater Quality

Groundwater quality in the San Jacinto Basin has been impacted by historical agricultural and industrial practices. Constituents of concern (COC) in the groundwater include nitrate and total dissolved solids (TDS), which have accumulated in the basin over time and currently exceed the

¹¹ Ibid.

¹² DWR. 2006. San Jacinto Groundwater Basin Bulletin 118. January 20.

¹³ Eastern Municipal Water District. 2021. Op. cit.

¹⁴ DWR. 2006. Op. cit.

¹⁵ LGC Geotechnical. 2018. Preliminary Geotechnical Evaluation and Design Recommendations for the Proposed Approximately 580-Acre "Menifee Valley" Residential Development, City of Menifee, California. May 25.

water quality objectives established in the Water Quality Control Plan for the Santa Ana River Basin. In addition, point source contaminants from industrial, service commercial (gas stations, dry cleaners, etc.), and military facilities have locally affected water quality with specific contaminants such as fuels, perchlorate, and per- and polyfluoroalkyl substances (PFAS). Historical activities at the March Air Reserve Base, which is the largest and most consequential environmental cleanup site in the basin area, have resulted in the detection of elevated concentrations of fuels, oils, and solvents; volatile organic compounds (VOCs); polycyclic aromatic hydrocarbons (PAH); and PFAS.¹⁶

Of the potential constituents of concern measured in the groundwater of the San Jacinto Basin, TDS and nitrate are the only two for which groundwater quality objectives have been developed in the Basin Plan. This means that the Basin Plan has defined concentrations of these constituents in the groundwater for the “reasonable protection of beneficial uses of water.” Other COCs have regulatory thresholds that are applied after the groundwater has been extracted and before it can be served as drinking water.¹⁷

4.10.3.5 Floodplains

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C2060H (effective August 18, 2014), portions of the northeastern, central, and southwestern areas of the Project site are located in Flood Hazard Zone X (shaded). Flood Zone X (shaded) is defined as 0.2% Annual Chance Flood Hazard, or areas of 1% annual chance flood with average depth less than 1 foot or with drainage areas of less than 1 square mile. Small portions in the center of the Project site are within Flood Hazard Zone A. Flood Zone A includes areas subject to inundation by the 1-percent-annual-chance flood event. **Figure 4.10-4: Project Site FEMA Flood Map** shows the FEMA Mapping of the Project site and the location of the Flood Zone A and X (shaded) areas on site.

4.10.4 Regulatory Setting

This section includes applicable federal, State, regional, and City regulations.

4.10.4.1 Federal Regulations

Clean Water Act. In 1972, the Federal Water Pollution Control Act (now referred to as the Clean Water Act [CWA]) was amended to require that the discharge of pollutants into waters of the United States from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the United States Environmental Protection Agency (EPA) establish regulations for the permitting of storm water discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by an NPDES permit.

¹⁶ Eastern Municipal Water District. 2021. Op. cit.

¹⁷ Ibid.

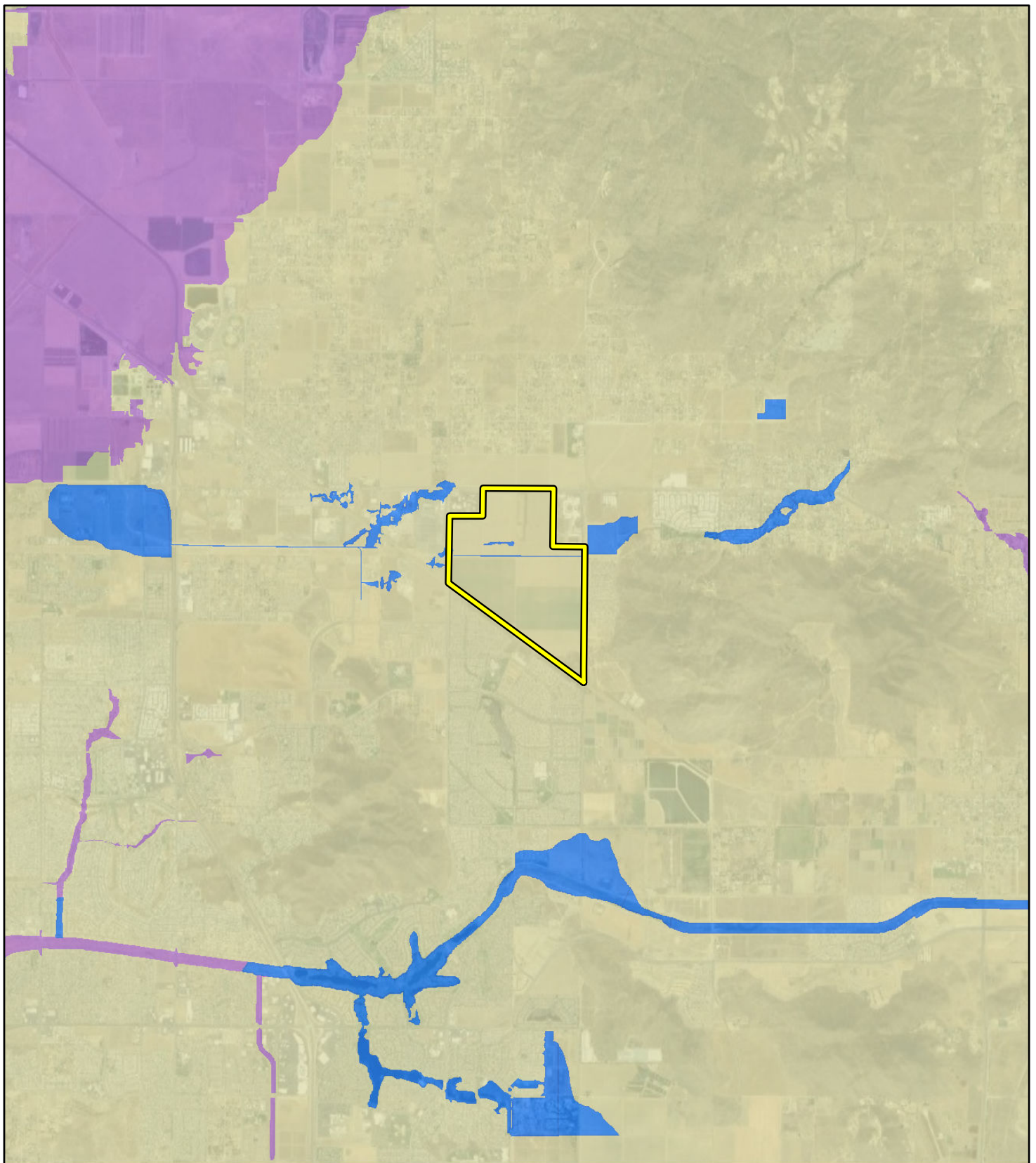


FIGURE 4.10-4

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 Project Location

Moderate and Low Risk Areas

X (= areas outside 1% annual chance or 1% chance with depths less than 1 ft, drainages less than 1 sq mi, or levee protected areas)

High Risk Areas

 A (= 1 % annual chance)

 AE (= 1% annual chance determined by detailed methods)

Menifee Valley Specific Plan
Project Site FEMA Flood Map

SOURCE: Google Imagery (2022); FEMA (2022)

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The CWA requires states to adopt water quality standards for water bodies and have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, fishing), along with water quality criteria necessary to support those uses. Water quality criteria are set concentrations or levels of constituents (e.g., lead, suspended sediment, and fecal coliform bacteria) or narrative statements that represent the quality of water that support a particular use. Because California had not established a complete list of acceptable water quality criteria for toxic pollutants, the EPA Region IX established numeric water quality criteria for toxic constituents in the form of the California Toxics Rule (CTR).

When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired.

Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a “factor of safety” included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body. Direct discharges of pollutants into waters of the United States are not allowed except in accordance with the NPDES program established in Section 402 of the CWA.

Clean Water Act, Section 303, List of Impaired Water Bodies. The State Water Resources Control Board (SWRCB), in compliance with Section 303(d) of the CWA, prepared a 2014/2016 list of impaired water bodies in California. The SWRCB approved the 2014/2016 California Integrated Report (CWA Section 303(d) List/305(b) Report) on October 3, 2017. On April 6, 2018, the EPA approved the 2014/2016 California 303(d) List of Water Quality Limited Segments (Section 303[d] list). The Section 303(d) list includes a priority schedule for the development of TMDL implementation for each contaminant affecting the water body.

National Flood Insurance Act. Congress acted to reduce the costs of disaster relief by passing the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief efforts by restricting development in floodplains. FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in a floodplain. FEMA issues FIRMs of communities participating in the NFIP. These maps delineate flood hazard zones in the community. If a proposed project would affect the hydrologic or hydraulic characteristics of a flooding source and result in the modification of an existing regulatory floodway, the effective Base Flood Elevations, or the Special Flood Hazard Area, FEMA may comment on the project in the form of a Conditional Letter of Map Revision (CLOMR). The letter does not revise an effective NFIP map but indicates whether the project, if built as proposed, would be recognized by FEMA. FEMA will issue a Letter of Map Revision (LOMR) to officially revise the current NFIP map to show changes to floodplains, regulatory floodways, or flood elevations. Because a LOMR officially revises the effective FIRM, the flood hazard updates shown are used to rate flood insurance policies and enforce flood insurance and development requirements.

The City of Menifee manages local storm drain facilities, and the Riverside County Flood Control and Water Conservation District is responsible for regional flood control planning within Riverside County.

4.10.4.2 State Regulations

Porter-Cologne Water Quality Control Act of 1970. The CWA places the primary responsibility for the control of water pollution and planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and the nine RWQCBs broad powers to protect water quality and is the primary vehicle for the implementation of California's responsibility under the CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface water and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product.

Each RWQCB must formulate and adopt a water quality plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The city, including the Project site, is within the jurisdictional boundaries of the Santa Ana RWQCB (Region 8).

California Toxics Rule (CTR). As stated previously, because California had not established a complete list of acceptable water quality criteria for toxic pollutants, EPA Region IX established numeric water quality criteria for toxic constituents in the form of the CTR. The CTR provides water quality criteria for certain potentially toxic compounds for inland surface waters, enclosed bays, estuaries, and waters designated for human health or aquatic life uses. The CTR is often used by the RWQCBs when establishing water quality objectives and TMDLs. Although the CTR criteria do not apply directly to discharges of storm water runoff, they are utilized as benchmarks for toxics in urban runoff. The CTR is used as a benchmark to evaluate the potential ecological impacts of storm water runoff to receiving waters. The CTR establishes acute and chronic surface water quality standards for certain water bodies. Acute criteria provide benchmarks for the highest permissible concentration below which aquatic life can be exposed for short periods of time without negative effects. Chronic criteria provide benchmarks for an extended period of time (i.e., 4 days or more) without negative effects. The acute CTR criteria have a shorter relevant averaging period (less than 4 days) and provide a more appropriate benchmark for comparison for storm water flows.

CTR criteria apply to the receiving water body and are calculated based on the probable hardness values of the receiving waters. At higher hardness values for receiving waters, certain constituents (including copper, lead, and zinc) are more likely to be complexed (bound with) components in the

water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

General Construction Activity Storm Water Permit. The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit), adopted by the SWRCB, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least 1 acre of total land area. The Construction General Permit (CGP) authorizes the discharge of storm water to surface waters from construction activities.

The CGP requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the General Permit;
- Eliminate or reduce non-storm water discharges to storm sewer systems and other waters of the United States;
- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies BMPs that will reduce pollution in storm water discharges to the Best Available Technology/Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct storm water sampling, if required based on risk level.

To obtain coverage under the CGP, a project applicant must electronically file all permit registration documents with the SWRCB prior to the start of construction. Permit registration documents must include a:

- Notice of Intent (NOI);
- Risk Assessment;
- Site map;
- SWPPP;
- Annual fee; and
- Signed certification statement.

Construction BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, and control pollutants from construction materials from entering receiving waters. The SWPPP must also include a discussion of the program to inspect and maintain all BMPs. Examples of construction BMPs that could be used at the Project site include, but are not limited to, the following:

- Soil Binders;
- Straw Mulch;

- Non-vegetative Stabilization;
- Fiber Rolls;
- Sandbag Barrier;
- Straw Bale Barrier;
- Stabilized Construction Entrance/Exit;
- Stabilized Construction Roadway; and
- Entrance/Outlet Tire Wash.

Refer to **Appendix I-4** for a detailed description of the example erosion and sediment control BMPs listed above.

Sustainable Groundwater Management Act. The Sustainable Groundwater Management Act (SGMA) of 2014 is a comprehensive three-bill package that Governor Jerry Brown signed into California State law in September 2014. The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention if necessary to protect the resource. The plan is intended to ensure a reliable groundwater supply for California for years to come.

The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdrafts of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies (GSAs) that are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins.

4.10.4.3 Regional Regulations

Water Quality Control Plans (Basin Plans). The Santa Ana RWQCB has adopted a Basin Plan for its region of responsibility that delineates water resource area boundaries based on hydrological features. For the purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the surface waters and groundwater management zones described in the Basin Plan. Once beneficial uses are designated, appropriate water quality objectives are established, and programs that maintain or enhance water quality can be implemented to ensure the protection of beneficial uses.

For planning purposes, the Santa Ana RWQCB uses a watershed classification that divides surface waters into hydrologic units (HUs), areas, and subareas. As designated by the Santa Ana RWQCB, the Project site is located in the San Jacinto Valley HU, the Perris Hydrologic Area, and the Perris Valley and Winchester Hydrologic Subareas.

Table 4.10.A: Beneficial Uses of Surface Receiving Waters shows the beneficial uses of surface receiving waters for the Project site: Municipal and Domestic Supply (MUN); Agriculture Supply (AGR); Groundwater Recharge (GWR); Water Contact Recreation (REC1); Non-Contact Water Recreation (REC2); Commercial and Sportfishing (COMM); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); and Rare, Threatened, or Endangered Species (RARE).

Table 4.10.A: Beneficial Uses of Surface Receiving Waters

Water Bodies	MUN	AGR	GWR	REC1	REC2	COMM	WARM	WILD	RARE
San Jacinto River Reach 3 (HU # 802.11)	+	I	I	I	I		I	I	X
San Jacinto River Reach 2 (Canyon Lake) (HU # 802.11/802.12)	X	X	X	X	X	X	X	X	
San Jacinto River Reach 1 (HU # 802.32/802.31)	I	I	I	I	I		I	I	X
Lake Elsinore (HU # 802.31)	+			X	X	X	X	X	X

Source: California Regional Water Quality Control Board, Santa Ana Region, *Water Quality Control Plan for the Santa Ana River Basin*, Table 3-1, June 2019.

X = Existing or Potential Beneficial Use

I = Intermittent Beneficial Use

+ = Excepted from MUN designation in accordance with the criteria specified in the "Sources of Drinking Water Policy"

Basin Plans also establish implementation programs to achieve water quality objectives to protect beneficial uses and require monitoring to evaluate the effectiveness of the programs. These objectives must comply with the State antidegradation policy (State Board Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Basin Plans have established narrative and numeric water quality objectives for inland surface streams and groundwater. If water quality objectives are exceeded, the RWQCBs can use their regulatory authority to require municipalities to reduce pollutant loads to the affected receiving waters. Relevant surface water quality objectives for all inland surface waters and groundwater under the jurisdiction of the Santa Ana RWQCB that are applicable to the receiving waters for the Project site are shown in **Table 4.10.B: Surface Water Quality Objectives for Inland Surface Waters** and **Table 4.10.C: Groundwater Quality Objectives**, respectively.

Municipal Phase I Program MS4. The City of Menifee is a Co-Permittee of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region, Order No. R8-2010-0033, NPDES No. CAS 618033 as amended by Order No. R8-2013-0024. The NPDES permit prohibits discharges, sets limits on pollutants being discharged into receiving waters, and requires implementation of technology-based standards. The County MS4 Permit requires co-permittees to develop and implement a standard design and post-development BMP guidance to guide application of Low Impact Development (LID) BMPs to the maximum extent practicable.

General Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (de Minimis) Threat to Water Quality. The Santa Ana RWQCB requires a permit for discharges to surface waters that pose an insignificant threat to water quality (Order No. R8-2020-0006, NPDES No. CAG998001). Wastewater discharges associated with construction dewatering are regulated under this order. If dewatering occurs during construction of the project within the Santa Ana RWQCB Region, it must comply with this permit.

Table 4.10.B: Surface Water Quality Objectives for Inland Surface Waters

Constituent	Concentration																
N/A	Inland surface water communities and populations, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of the discharge of waste. Degradation is damage to an aquatic community or population with the result that balanced community no longer exists. A balanced community is one that (1) is diverse; (2) has the ability to sustain itself through cyclic seasonal changes; (3) includes necessary food chain species; and (4) is not dominated by pollution-tolerant species unless that domination is caused by physical habitat limitations. A balanced community also: (5) may include historically introduced nonnative species, but (6) does not include species present because best available technology has not been implemented, or (7) because site-specific objectives have been adopted, or (8) because of thermal discharges.																
Algae	Waste discharges shall not contribute to excessive algal growth in inland surface receiving waters.																
Ammonia, Un-ionized	Calculated numerical UIA-N objectives as well as corresponding total ammonia nitrogen concentration for various pH and temperature conditions are shown in Basin Plan Tables 4-2 and 4-3.																
Boron	Boron concentrations shall not exceed 0.75 mg/L in inland surface waters of the region as a result of controllable water quality factors.																
Chemical Oxygen Demand (COD)	Waste discharges shall not result in increases in COD levels in inland surface waters that exceed the values shown in Basin Plan Table 4-1 or that adversely affect beneficial uses.																
Chloride	The chloride objectives listed in Basin Plan Table 4-1 shall not be exceeded as a result of controllable water quality factors.																
Chlorine, Residual	To protect aquatic life, the chlorine residual in wastewater discharged to inland surface waters shall not exceed 0.1 micrograms per liter (ug/L).																
Color	Waste discharges shall not result in coloration of the receiving waters that causes a nuisance or adversely affects beneficial uses. The natural color of fish, shellfish, or other inland surface water resources used for human consumption shall not be impaired.																
Dissolved Solids, Total (Total Filtrable Residue)	The dissolved mineral content of the waters of the region, as measured by the total dissolved solids test ("Standard Methods for the Examination of Water and Wastewater, 16th Ed.," 1985: 209B (180°C), p. 95), shall not exceed the specific objectives listed in Basin Plan Table 4-1 as a result of controllable water quality factors.																
Filtrable Residue, Total	See Dissolved Solids, Total																
Floatables	Waste discharges shall not contain floating materials, including solids, liquids, foam, or scum, that cause a nuisance or adversely affect beneficial uses.																
Fluoride	Fluoride concentrations shall not exceed values specified below in inland surface waters designated MUN as a result of controllable water quality factors. <table border="1"> <thead> <tr> <th colspan="2">Annual Average Maximum Optimum Fluoride</th></tr> <tr> <th>Daily Air Temperature (°C)</th><th>Concentration (mg/L)</th></tr> </thead> <tbody> <tr> <td>12.0 and below</td><td>1.2</td></tr> <tr> <td>12.1 to 14.6</td><td>1.1</td></tr> <tr> <td>14.7 to 17.6</td><td>1.0</td></tr> <tr> <td>17.7 to 21.4</td><td>0.9</td></tr> <tr> <td>21.5 to 26.2</td><td>0.8</td></tr> <tr> <td>26.3 to 32.5</td><td>0.7</td></tr> </tbody> </table>	Annual Average Maximum Optimum Fluoride		Daily Air Temperature (°C)	Concentration (mg/L)	12.0 and below	1.2	12.1 to 14.6	1.1	14.7 to 17.6	1.0	17.7 to 21.4	0.9	21.5 to 26.2	0.8	26.3 to 32.5	0.7
Annual Average Maximum Optimum Fluoride																	
Daily Air Temperature (°C)	Concentration (mg/L)																
12.0 and below	1.2																
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17.7 to 21.4	0.9																
21.5 to 26.2	0.8																
26.3 to 32.5	0.7																

Table 4.10.B: Surface Water Quality Objectives for Inland Surface Waters

Constituent	Concentration
Hardness (as CaCO ₃)	The objectives listed in Basin Plan Table 4-1 shall not be exceeded as a result of controllable water quality factors. If no hardness objective is listed in Basin Plan Table 4-1, the hardness of receiving waters used for MUN shall not be increased as a result of waste discharges to levels that adversely affect beneficial uses.
Inorganic Nitrogen, Total	See Nitrogen, Total Inorganic
Methylene Blue-Activated Substances (MBAS)	MBAS concentrations shall not exceed 0.05 mg/L in inland waters designated MUN as a result of controllable water quality factors.
Nitrate	Nitrate-nitrogen concentrations shall not exceed 45 mg/L (as NO ₃) or 10 mg/L (as N) in inland surface waters designated MUN as a result of controllable water quality factors.
Nitrogen, Total Inorganic	The objectives listed in Basin Plan Table 4-1 shall not be exceeded as a result of controllable water quality factors.
Oil and Grease	Waste discharges shall not result in deposition of oil, grease, wax, or other material in concentrations that result in a visible film or in coating objects in the water, or which cause a nuisance or adversely affect beneficial uses.
Oxygen, Dissolved	The dissolved oxygen content of surface waters shall not be depressed below 5 mg/L for waters designated WARM, or 6 mg/L for waters designated COLD, as a result of controllable water quality factors. In addition, waste discharges shall not cause the median dissolved oxygen concentration to fall below 85% of saturation or the 95th percentile concentration or fall below 75% of saturation within a 30-day period.
Pathogen Indicator Bacteria	Waste discharges shall not cause or contribute to excessive risk of illness from microorganisms pathogenic to human beings. Pathogen indicator concentrations shall not exceed the values listed in Basin Plan Table 4-1 as a result of controllable water quality factors unless it is demonstrated to the Regional Board's satisfaction that the elevated indicator concentrations do not result in excessive risk of illness among people recreating in or near the water. In all cases, the level of water quality necessary to protect existing uses must be maintained. Where existing water quality is better than necessary to protect the designated use, the existing high level of water quality must be maintained unless it is demonstrated that existing or potential beneficial uses would be protected and that water quality consistent with maximum benefit to the people of California would be maintained, as specified in the state antidegradation policy (SWRCB Resolution No. 68-16). The Regional Board may also require recycled water discharged to freshwaters designated REC-1 or REC-2 to comply with other limitations recommended by the California Department of Public Health (CDPH).
pH	The pH of inland surface waters shall not be raised above 8.5 pH or depressed below 6.5 pH as a result of controllable water quality factors.
Radioactivity	Radioactive materials shall not be present in the waters of the region in concentrations that are deleterious to human, plant, or animal life. Waters designated MUN shall meet the limits specified in the California Code of Regulations, Title 22, and listed here: ● Combined Radium-226 and Radium-228: 5 pCi/L ● Gross Alpha Particle Activity: 15 pCi/L ● Tritium: 20,000 pCi/L ● Strontium-90: 8 pCi/L ● Gross Beta Particle: 50 pCi/L ● Uranium 20: pCi/L
Sodium	The sodium objectives listed in Basin Plan Table 4-1 shall not be exceeded as a result of controllable water quality factors.

Table 4.10.B: Surface Water Quality Objectives for Inland Surface Waters

Constituent	Concentration								
Solids, Suspended and Settleable	Inland surface waters shall not contain suspended or settleable solids in amounts that cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.								
Sulfate	The objectives listed in Basin Plan Table 4-1 shall not be exceeded as a result of controllable water quality factors.								
Sulfides	The dissolved sulfide content of inland surface waters shall not be increased as a result of controllable water quality factors.								
Surfactants (surface-active agents)	Waste discharges shall not contain concentrations of surfactants that result in foam in the course of flow or use of the receiving water, or that adversely affect aquatic life.								
Taste and Odor	The inland surface waters of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations that cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish, or other regional inland surface water resources used for human consumption shall not be impaired.								
Temperature	The natural receiving water temperature of inland surface waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. The temperature of waters designated COLD shall not be increased by more than 5°F as a result of controllable water quality factors. The temperature of waters designated WARM shall not be raised above 90°F from June through October or above 78°F during the rest of the year as a result of controllable water quality factors. Lake temperatures shall not be raised more than 4°F above established normal values as a result of controllable water quality factors.								
Total Dissolved Solids	See Dissolved Solids, Total								
Total Filtrable Residue	See Dissolved Solids, Total								
Total Inorganic Nitrogen	See Nitrogen, Total Inorganic								
Toxic Substances	Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels that are harmful to human health. The concentrations of contaminants in waters that are existing or potential sources of drinking water shall not occur at levels that are harmful to human health. The concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses.								
Turbidity	Increases in turbidity that result from controllable water quality factors shall comply with the following: <table border="1"> <thead> <tr> <th>Natural Turbidity</th><th>Maximum Increase</th></tr> </thead> <tbody> <tr> <td>0-5 NTU</td><td>20%</td></tr> <tr> <td>50-100 NTU</td><td>10 NTU</td></tr> <tr> <td>>100 NTU</td><td>10%</td></tr> </tbody> </table>	Natural Turbidity	Maximum Increase	0-5 NTU	20%	50-100 NTU	10 NTU	>100 NTU	10%
Natural Turbidity	Maximum Increase								
0-5 NTU	20%								
50-100 NTU	10 NTU								
>100 NTU	10%								

Source: *Santa Ana River Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin*, Santa Ana Regional Water Quality Control Board, RWQCB 1995, amended 2019.

°C = degrees Celsius

°F = degrees Fahrenheit

CaCO₃ = calcium carbonate

COLD = cold freshwater habitat

MUN = municipal supply

NO₃ = nitrate

NTU = nephelometric turbidity unit

pCi/L = picocuries per liter of air

REC-1 = contact water recreation

REC-2 = non-contact water recreation

RWQCB = Regional Water Quality Control Board

SWRCB = State Water Resources Control Board

UIA-N = un-ionized ammonia nitrogen

WARM = warm freshwater habitat

Table 4.10.C: Groundwater Quality Objectives

Constituent	Basin Plan Objectives																						
Arsenic	Arsenic concentrations shall not exceed 0.05 mg/L in groundwater designated MUN as a result of controllable water quality factors.																						
Bacteria	Total coliform numbers shall not exceed 2.2 organisms/100 mL median over any 7-day period in groundwaters designated MUN as a result of controllable water quality factors.																						
Barium	Barium concentrations shall not exceed 1.0 mg/L in groundwaters designated MUN as a result of controllable water quality factors.																						
Boron	Boron concentrations shall not exceed 0.75 mg/L in groundwaters of the region as a result of controllable water quality factors.																						
Chloride	Chloride concentrations shall not exceed 500 mg/L in groundwaters of the region designated MUN as a result of controllable water quality factors.																						
Color	Waste discharges shall not result in coloration of the receiving waters that causes a nuisance or adversely affects beneficial uses.																						
Cyanide	Cyanide concentrations shall not exceed 0.2 mg/L in groundwaters designated MUN as a result of controllable water quality factors.																						
Dissolved Solids, Total (Total Filterable Residue)	The dissolved mineral content of the waters of the region, as measured by the total dissolved solids test ("Standard Methods for the Examination of Water and Wastewater, 20th Ed.," 1998: 2540C (180°C), p.2-56), shall not exceed the specific objectives listed in Table 4-1 of the Santa Ana RWQCB Basin Plan as a result of controllable water quality factors. (See also discussion of management zone TDS and nitrate-nitrogen water quality objectives in the Santa Ana RWQCB Basin Plan.)																						
Filterable Residue, Total	See Dissolved Solids, Total.																						
Fluoride	Fluoride concentrations shall not exceed 1.0 mg/L in groundwaters designated MUN as a result of controllable water quality factors.																						
Hardness (as CaCO ₃)	The hardness of receiving waters used for MUN shall not be increased as a result of waste discharges to levels that adversely affect beneficial uses.																						
Metals	Metal concentrations shall not exceed the values listed below in groundwaters designated MUN as a result of controllable water quality factors. <table border="1"> <thead> <tr> <th>Metal (°C)</th><th>Concentration (mg/L)</th></tr> </thead> <tbody> <tr> <td>Cadmium</td><td>0.01</td></tr> <tr> <td>Chromium</td><td>0.05</td></tr> <tr> <td>Cobalt</td><td>0.2</td></tr> <tr> <td>Copper</td><td>1.0</td></tr> <tr> <td>Iron</td><td>0.3</td></tr> <tr> <td>Lead</td><td>0.05</td></tr> <tr> <td>Manganese</td><td>0.05</td></tr> <tr> <td>Mercury</td><td>0.002</td></tr> <tr> <td>Selenium</td><td>0.01</td></tr> <tr> <td>Silver</td><td>0.05</td></tr> </tbody> </table>	Metal (°C)	Concentration (mg/L)	Cadmium	0.01	Chromium	0.05	Cobalt	0.2	Copper	1.0	Iron	0.3	Lead	0.05	Manganese	0.05	Mercury	0.002	Selenium	0.01	Silver	0.05
Metal (°C)	Concentration (mg/L)																						
Cadmium	0.01																						
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Lead	0.05																						
Manganese	0.05																						
Mercury	0.002																						
Selenium	0.01																						
Silver	0.05																						
Methylene Blue-Activated Substances (MBAS)	MBAS concentrations shall not exceed 0.05 mg/L in groundwaters designated MUN as a result of controllable water quality factors.																						
Nitrogen (Nitrate, Nitrite)	Nitrate-nitrogen concentrations listed in Table 4-1 of the Santa Ana RWQCB Basin Plan shall not be exceeded as a result of controllable water quality factors. (See also discussion of management zone TDS and nitrate-nitrogen water quality objectives in the Santa Ana RWQCB Basin Plan.)																						
Oil and Grease	Waste discharges shall not result in deposition of oil, grease, wax, or other materials in concentrations that cause a nuisance or adversely affect beneficial uses.																						
pH	The pH of groundwater shall not be raised above 9 or depressed below 6 as a result of controllable water quality factors.																						

Table 4.10.C: Groundwater Quality Objectives

Constituent	Basin Plan Objectives
Radioactivity	Radioactive materials shall not be present in the waters of the region in concentrations that are deleterious to human, plant, or animal life. Groundwaters designated MUN shall meet the limits specified in the California Code of Regulations, Title 22, and listed below: ● Combined Radium-226 and Radium-228 5 pCi/L ● Gross Alpha particle activity 15 pCi/L ● Tritium 20,000 pCi/L ● Strontium-90 8 pCi/L ● Gross Beta particle activity 50 pCi/L ● Uranium 20 pCi/L
Sodium	Groundwaters designated AGR shall not exceed a sodium absorption ration (SAR) of 9 as a result of controllable water quality factors.
Sulfate	Sulfate concentrations shall not exceed 500 mg/L in groundwaters of the region designated MUN as a result of controllable water quality factors.
Taste and Odor	The groundwaters of the region shall not contain, as a result of controllable water quality factors, taste- or odor-producing substances at concentrations that cause a nuisance or adversely affect beneficial uses.
Total Dissolved Solids	See Dissolved Solids, Total
Total Filtrable Residue	See Dissolved Solids, Total
Total Inorganic Nitrogen	See Nitrogen, Total Inorganic
Toxic Substances	All waters of the region shall be maintained free of substances in concentrations that are toxic or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Source: *Santa Ana River Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin*, Santa Ana Regional Water Quality Control Board, RWQCB 1995, amended 2019.

°C = degrees Celsius

AGR = agricultural water supply

mg/L= milligrams per liter

mL= milliliters

MUN= Municipal Water Supply

pCi/L= picocuries per liter of air

RWQCB = Regional Water Quality Control Board

TDS = total dissolved solids

4.10.4.4 Local Regulations

City of Menifee General Plan. The City of Menifee General Plan includes an Open Space and Conservation Element and a Safety Element that provide goals and policies pertaining to hydrology and water quality in the city. The Open Space and Conservation Element provides direction on how to cultivate and manage natural resources in the city. The following policies from the Open Space and Conservation Element would apply to the proposed Project:

Goal OCS-7: A reliable and safe water supply that effectively meets current and future user demands.

Policy OCS-7.1: Work with the Eastern Municipal Water District to ensure that adequate, high-quality potable water supplies and infrastructure are provided to all development in the community.

Policy OCS-7.2: Encourage water conservation as a means of preserving water resources.

Policy OCS-7.3: Coordinate with the Eastern Municipal Water District to educate the public on the benefits of water conservation and promote strategies residents and businesses can employ to reduce their water usage.

Policy OCS-7.4: Encourage the use of reclaimed water for the irrigation of parks, golf courses, public landscaped areas, and other feasible applications as service becomes available from the Eastern Municipal Water District.

Policy OCS-7.8: Protect groundwater quality by decommissioning existing septic systems and establishing connections to sanitary sewer infrastructure.

Policy OCS-7.9: Ensure that high quality potable water resources continue to be available by managing stormwater runoff, wellhead protection, and other sources of pollutants.

Policy OCS-7.10: Preserve natural floodplains, including Salt Creek, Ethanac Wash, Paloma Wash, and Warm Springs Creek, to facilitate water percolation, replenishment of the natural aquifer, proper drainage, and prevention of flood damage.

Policy OCS-7.11: Ensure that natural and cultural resources are protected and avoided while still maintaining important water goals.

The Safety Element addresses potential drainage and flooding hazards within Menifee. The main goal of this Element is to provide a strategy to effectively address natural and man-made hazards in Menifee. The following goals and policies from the Safety Element would apply to the proposed Project:

Goal S-3: A community that is minimally disrupted by flooding and inundation hazards.

Policy S-3.1: Require that all new developments and redevelopments in areas susceptible to flooding (such as the 100-year floodplain and areas known to the City to flood during intense or prolonged rainfall events) incorporate mitigation measures designed to mitigate flood hazards.

Policy S-3.2: Reduce flood hazards in developed areas known to flood.

Policy S-3.4: Develop floodplains as parks, nature trails, equestrian parks, golf courses, or other types of recreational facilities or joint-use facilities that can withstand periodic inundation wherever feasible.

City of Menifee Municipal Code. Chapters 15.01: Storm Water/Urban Runoff and 8.26: Grading Regulations of the City of Menifee Municipal Code set forth standards to protect water quality in the city. Chapter 15.01 of the Municipal Code was construed to ensure consistency with the requirements of the Clean Water Act, Porter-Cologne Water Quality Control Act, and any existing or future municipal NPDES Permits. Section 8.26.280 of the Municipal Code requires coverage under the general permit for discharges of storm water associated with construction activity Construction State Water Resources Control Board (SWRCB) Order 2009-0009-DWQ or any amendment, update, or more recent construction general permit for any development projects requesting a grading permit that disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of

a larger common plan of development that in total disturbs 1 or more acres. Section 8.26.060 requires the submission and approval of an Erosion Control Plan for all work requiring a grading permit or a grading plan.

Riverside County Flood Control and Water Conservation District Hydrology Manual. The Riverside County Flood Control and Water Conservation District (District) prepared and approved a Hydrology Manual in April 1978 to document design hydrology methods and criteria currently used by the Riverside County Flood Control and Water Conservation District and implemented by various projects being developed within the county. The materials contained in the manual are intended for the use of both District personnel and engineers submitting hydrologic computations to the District. Methods of the Hydrology Manual are considered applicable to the hydrologic design of underground storm drains, open channels, retention basins, dams, and debris basins, as well as subdivision review and flood plain mapping.¹⁸ As the proposed Project is located within the jurisdiction of the County Flood Control and Water Conservation District, design techniques from the Hydrology Manual would be applicable.

Riverside County Flood Control Water Conservation District Design Handbook for Low Impact Development Best Management Practices. The Riverside County Flood Control and Water Conservation District prepared and approved the Design Handbook for Low Impact Development Best Management Practices (Handbook) in September 2011.¹⁹ The Handbook supplements the Riverside County Water Quality Management Plan (WQMP) by providing guidance for the planning, design, and maintenance of Low Impact Development (LID) BMPs which may be used to mitigate the water quality impacts of developments within Riverside County. The Handbook contains detailed information and designs for seven LID BMPs that are designed to encourage replication of the site's natural hydrologic processes and includes detailed guidance for infiltration testing and basin considerations.

4.10.5 Thresholds of Significance

The City has not established local California Environmental Quality Act (CEQA) significance thresholds as described in Section 15064.7 of the *State CEQA Guidelines*. Therefore, significance determinations utilized in this section are from Appendix G of the *State CEQA Guidelines*. According to Section VIII of Appendix G to the *State CEQA Guidelines*, the proposed Project may be deemed to have a significant impact with respect to hydrology and water quality if it would:

- Threshold 4.10-1:** Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Threshold 4.10-2:** Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

¹⁸ Riverside County Flood Control and Water Conservation District, Hydrology Manual, April 1978, Website: <https://rcflood.org/Portals/0/Downloads/Hydrology-Manual-20180814.pdf?ver=2020-02-05-091623-987> (accessed June 28, 2022).

¹⁹ Riverside County Flood Control and Water Conservation District. September 2011. Design Handbook for Low Impact Development Best Management Practices.

- Threshold 4.10-3:** 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 that would result in flooding on or off site; (iii) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (iv) Impede or redirect flood flows.
- Threshold 4.10-4:** In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Threshold 4.10-5** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.6 Project Impacts

4.10.6.1 Violate Water Quality Standards

- Threshold 4.10-1:** Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

On-Site Project Impacts.

Construction. The 590.3-acre Project site would be developed with up to 1,711 residential units, 74,500 square feet of public facilities/civic uses, and 5,600,000 square feet of commercial business park use (commercial, retail, small-scale light industrial, warehouse/storage, and manufacturing). Approximately 39.9 acres of land would be designed for parks, open space, and recreation, and an elementary school would be developed on up to 12.0 acres. Pollutants of concern during construction include sediment, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on groundwater, on-site surface water, and off-site downstream receiving waters. During soil-disturbing construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm water runoff into receiving waters. Sediment from increased soil erosion and chemicals from spills and leaks have the potential to be discharged to downstream receiving waters during storm events, which can affect water quality and impair beneficial uses.

Because construction of the proposed Project would disturb greater than 1 acre of soil, the proposed Project is subject to the requirements of the Construction General Permit, as specified in **Regulatory Compliance Measure (RCM) WQ-1**, identified below. As also specified in **RCM WQ-1**, a SWPPP would be prepared and construction BMPs detailed in the SWPPP would be implemented during construction, in compliance with the requirements of the CGP. In addition, as specified in **RCM WQ-2**, an Erosion Control Plan would be prepared and submitted to the City

Engineer/Public Works Director concurrent with the grading permit application or with submittal of the grading plans in compliance with the City's Municipal Code.

As construction of the proposed Project is expected to occur over a number of years, an approved Erosion Control Plan from the previous year shall be updated and submitted for approval, if necessary, prior to the start of the rainy season, as determined by the City Engineer/Public Works Director, to reflect any changed conditions where the grading or other land disturbance activity is continuing. The SWPPP and Erosion and Sediment Control Plans would detail the BMPs to be implemented during construction and would reduce any amount of sedimentation flowing off site and into downstream receiving waters. Construction BMPs may include, but not be limited to, soil binders; straw mulch; non-vegetative stabilization; fiber rolls; sandbag barrier; straw bale barrier; stabilized construction entrance/exit; stabilized construction roadway; and entrance/outlet tire wash to prevent spills, leaks, and discharge of construction debris and waste into downstream receiving waters (refer to Appendix I-4 for a detailed description of the example erosion and sediment control BMPs). Compliance with the requirements of the CGP and City Municipal Code, including incorporation of construction BMPs to target and reduce pollutants of concern in storm water runoff and reduce sediment release to receiving waters, would ensure that construction impacts related to water quality standards, waste discharge requirements (WDRs), and degradation of surface water quality would be **less than significant**.

According to the *Preliminary Geotechnical Evaluation* prepared for the proposed Project,²⁰ groundwater was encountered between approximately 33 and 40 feet below existing grade. This information is consistent with groundwater data collected during previous site explorations in 2004, which identified groundwater depths to be between approximately 37 and 68 feet below existing grade. In general, groundwater levels fluctuate with the seasons, and local zones of perched groundwater may be present within the near-surface deposits due to local seepage or during rainy seasons.

Due to the fact that groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present near the surface, groundwater dewatering may be required during project construction. Groundwater dewatering activities could affect surface water quality through the discharge of polluted groundwater to surface water bodies. As specified in **RCM WQ-3**, groundwater dewatering activities would comply with the Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimus) Threat to Water Quality (Groundwater Discharge Permit) (Order No. R8-2020-0006, NPDES No. CAG998001). In compliance with the requirements of the Groundwater Discharge Permit, groundwater would be tested and treated (if necessary) prior to discharge to surface water. Compliance with the Groundwater Discharge Permit would ensure that construction impacts related to water quality standards, WDRs, and degradation of groundwater quality would be **less than significant**.

²⁰ LGC Geotechnical. 2018. Preliminary Geotechnical Evaluation and Design Recommendations for the Proposed Approximately 580-Acre "Menifee Valley" Residential Development, City of Menifee, California. May 25.

Construction of the proposed Project would comply with existing NPDES regulations (as specified in **RCM WQ-1, RCM WQ-2, and RCM WQ-3**), which include preparation of a SWPPP and Erosion Control Plan, implementation of Construction BMPs to target and reduce pollutants of concern in storm water runoff (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash), and compliance with all applicable provisions in the Groundwater Discharge Permit. Compliance with regulatory requirements would ensure that impacts related to violation of any water quality standards or waste discharge requirements or the degradation of surface or groundwater quality during construction would be ***less than significant***, and no mitigation is required.

Operation. Expected pollutants of concern from long-term operation of the proposed Project include bacteria/virus, heavy metals, toxic organic compounds, nutrients, pesticides, sediment/turbidity, trash and debris, oils, and grease. Potential sources of these pollutants associated with the proposed Project include the following:

- **Bacteria/Virus:** Food wastes, sediment, and landscaping areas.
- **Heavy Metals and Toxic Organic Compounds:** Automobiles and surface parking areas.
- **Nutrients:** Fertilizers, sediment, and trash/debris.
- **Pesticides:** Landscaping activities.
- **Sediment/turbidity:** Disturbed or unstabilized landscaping areas and disturbed earth surfaces.
- **Trash and Debris:** Landscaping activities, food wrappers, and food wastes.
- **Oil and Grease:** Internal streets and parked vehicles.

The proposed Project would be required to comply with the requirements of the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit and associated guidance documents. The MS4 Permit requires that a Final Water Quality Management Plan (WQMP) be prepared for new development within its jurisdiction (specifically the City of Menifee). The Final WQMP would specify the Site Design, Source Control, Low Impact Development (LID), and Treatment Control BMPs that would be implemented to capture, treat, and reduce pollutants of concern in storm water runoff. Design BMPs are storm water management strategies that emphasize conservation and use of existing site features to reduce the amount of runoff and pollutant loading generated from a site. Source Control BMPs are preventative measures that are implemented to prevent the introduction of pollutants into storm water. LID BMPs mimic a project site's natural hydrology by using design measures that capture, filter, store, evaporate, detain, and infiltrate runoff rather than allowing runoff to flow directly to piped or impervious storm drains. Treatment Control BMPs are structural BMPs designed to treat and reduce pollutants in storm water runoff prior to releasing it to receiving waters. The proposed Project includes nine drainage management areas and would include the construction of eight bioretention basins and two detention basins as shown in **Figure 4.10-5: Proposed Condition**. The detention basins would be sized to detain the peak flow for a 100-year 3-hour storm and the 2-year 24-hour storm as part of the hydromodification requirements.

A *Preliminary Water Quality Management Plan* prepared for the proposed Project specifies the Source Control, Site Design, and LID BMPs proposed for the Project (no Treatment Control BMPs are proposed). The *Preliminary Water Quality Management Plan* would be refined during final design based on the final site plans, as specified under **RCM WQ-4**. As new buildings are proposed and developed on the Project site, prior to issuance of building permits, the City would require documentation that each specific development is consistent with the *Final Water Quality Management Plan* that was approved for the proposed Project. Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the Riverside County Airport Land Use Commission (ALUC). ALUC requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm and remain totally dry between rainfalls as detailed in **MM HAZ-2** as outlined in **Section 4.9**.

Many of the operational BMPs implemented for the proposed Project would require operation and maintenance responsibilities by either the owner of the property, the property's maintenance director, or tenants of the Project site. The following describes the operational BMPs that would require operation and maintenance:

- **Bioretention Basin Facilities:**
 - Maintain at least 70 percent mature coverage throughout the bioretention facilities. Replace damaged grass and/or plants.
 - Keep adjacent landscape areas maintained and remove clippings from landscape maintenance activities.
 - Use of fertilizers, pesticides, and herbicides should be strenuously avoided to ensure they do not contribute to water pollution.
 - Remove trash and debris.
 - Replace surface mulch layer as needed to maintain a 2–3 inch soil cover.
 - Check for erosion and sediment laden areas and repair as needed.
 - Inspect areas for ponding after storm events.
 - Annually inspect/clean inlets and outlets.
 - Maintain landscaping using minimum or no pesticides.
- **Education for Property Owners, Operators, Tenants, Occupants, or Employees:** Practical information materials will be provided to the first occupants/tenants on general housekeeping practices that contribute to the protection of storm water quality.

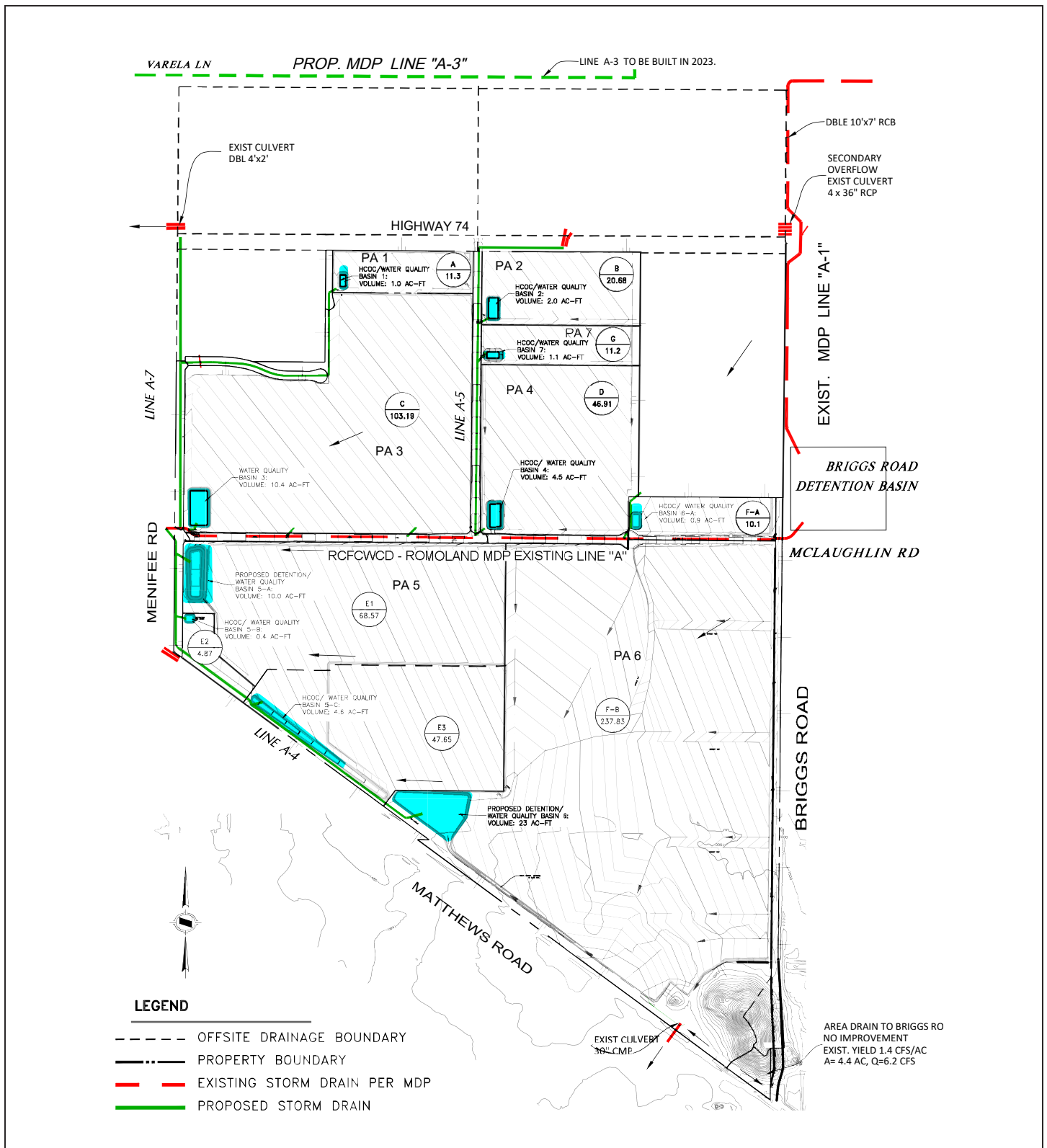
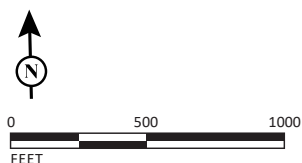


FIGURE 4.10-5

LSA



SOURCE: Hunsaker & Associates 2021

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Menifee Valley Specific Plan
Proposed Condition

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- **Lease Agreement:** Include the following in lease agreements: “Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains.”
- **Reclaimed Water:** Reclaimed water will be used for the non-potable water demands for the project.
- **Storm Drain Inlet Stenciling and Signage:** Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the Project area with prohibitive language (such as: “Only Rain Down the Storm Drain” or similar) and/or graphical icons to discourage illegal dumping. Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the Project area. Maintain and periodically repaint or replace inlet markings.
- **Landscape/Outdoor Pesticide Use:** Maintain landscaping using minimum or no pesticides. Provide integrated pest management information to new owners, lessees, and operators.
- **Vehicle/Equipment Repair and Maintenance:** No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area or secondary containment.
- **Roofing, Gutters, and Trim:** Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.
- **Trash Storage Areas:** Inspect and clean trash storage areas to eliminate any debris and potential for storm water contamination. Trash and spills are to be cleaned up immediately.

Project operation would not require groundwater extraction. Furthermore, the soils on site have low permeability. Therefore, there is not a direct path for pollutants to reach groundwater.

The proposed operational BMPs would target and reduce pollutants of concern from runoff from the Project site in compliance with the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit requirements. Compliance with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern, would ensure that impacts related to a violation of any water quality standards or waste discharge requirements or degradation of surface or groundwater water quality during Project operation would be ***less than significant with mitigation incorporated***.

Level of Significance Prior to Mitigation: Potentially Significant.

Regulatory Compliance Measures and Mitigation Measures: The following Regulatory Compliance Measures and Mitigation Measure would be implemented as part of the proposed Project:

- RCM WQ-1: Construction General Permit.** Prior to commencement of construction activities, the Applicant shall obtain coverage under the *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)*, NPDES No. CAS000002, Order No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, or any other subsequent permit. This shall include submission of Permit Registration Documents (PRDs), including permit application fees, a Notice of Intent (NOI), a risk assessment, a site plan, a Storm Water Pollution Prevention Plan (SWPPP), a signed certification statement, and any other compliance-related documents required by the permit, to the State Water Resources Control Board via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained for the proposed Project from the SMARTS and provided to the City Engineer/Public Works Director, or designee, to demonstrate that coverage under the Construction General Permit has been obtained. Project construction shall comply with all applicable requirements specified in the Construction General Permit, including but not limited to, preparation of a SWPPP and implementation of construction site best management practices (BMPs) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level identified for the proposed Project. The SWPPP shall identify the sources of pollutants that may affect the quality of storm water and shall include BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) to control the pollutants in storm water runoff. Upon completion of construction activities and stabilization of the Project site, a Notice of Termination shall be submitted via SMARTS.
- RCM WQ-2** In compliance with City of Menifee Ordinance 2019-287 Grading Regulations, Section 8.26.060, the Project Applicant shall submit an Erosion Control Plan to the City Engineer/Public Works Director or designee, for review and approval concurrent with the grading permit application or with submittal of the grading plans for each individual development that would occur within the Specific Plan area. An approved erosion control plan from the previous year shall be updated and submitted for approval, if necessary, prior to the start of the rainy season each year, as determined by the City Engineer/Public Works Director.
- RCM WQ-3** At least 45 days prior to groundwater dewatering activities, the City of Menifee shall submit an NOI to the Santa Ana RWQCB to obtain coverage under the General Waste Discharge Requirements for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality (Groundwater Discharge Permit), Order No. R8-2020-0006, NPDES No. CAG998001. The construction contractor shall comply with the requirements of Order No. R8-2020-0006, NPDES No. CAG998001. Groundwater dewatering activities shall comply with all applicable provisions in the Groundwater Discharge Permit, including water sampling, analysis, treatment (if

required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, an NOT shall be submitted to the Santa Ana RWQCB.

RCM WQ-4 Prior to issuance of a grading permit, the Applicant shall submit a Final Water Quality Management Plan (WQMP) to the City Engineer/Public Works Director or designee for review and approval. The Final WQMP shall specify the BMPs to be incorporated into the proposed Project design to target pollutants of concern in runoff from the Project Site. The Final WQMP shall also incorporate the results of the Final Hydrology and Hydraulic Analyses to demonstrate that the bioretention facilities meet the hydromodification requirements of the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit. The City Engineer/Public Works Director, or designee, shall ensure that the BMPs specified in the Final WQMP are incorporated into the final Project design.

MM HAZ-2 **Riverside County ALUC Condition of Approval.** Prior to commencement of any construction activities, the project applicant shall provide proof to the City of Menifee Community Development Director, or designee, of compliance with the following ALUC conditions as included in their approval letter dated November 16, 2022:²¹

- **Outdoor Lighting.** Any new outdoor lighting that is installed shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing. Installation of future rooftop solar panels will require solar glare studies and ALUC review.
- **Prohibition of certain uses/activities:**
 - Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in initial takeoff or final landing procedure other than an FAA-approved navigational signal light or visual approach slope indicator;
 - Any use which would cause sunlight to be reflected towards an aircraft engaged in initial takeoff or final landing procedure towards an airport;
 - Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area;
 - Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation;

²¹ Ibid.

- Highly noise-sensitive outdoor nonresidential uses; and
- Any use which results in a hazard to flight, including physical (tall objects), visual, and electronic forms of interference with the safety of aircraft operations.
- **“Notice of Airport in Vicinity”:** A “Notice of Airport in Vicinity” (attached to the ALUC approval letter, **Appendix H-4**) shall be provided to all prospective purchasers and occupants of the property.
- **Stormwater Basins:** Any proposed stormwater basins or facilities shall be designed and maintained to provide for a maximum 48-hour detention following the design storm, and remain totally dry between rainfalls. Vegetation in and around the stormwater basins that would provide food or cover for birds would be incompatible with airport operations and shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the stormwater basins shall not include trees or shrubs that produce seeds, fruits, or berries.

Landscaping in the stormwater basin, if not rip-rap, should be in accordance with the guidance provided in ALUC “Landscaping Near Airports” brochure, and the “Airports, Wildlife, and Stormwater Management” brochure available at RCALUC.org, which list acceptable plants from the Riverside County Landscaping Guide or other alternative landscaping as may be recommended by a qualified wildlife hazard biologist.

A notice sign (attached to the ALUC approval letter, **Appendix H-4**) shall be permanently affixed to the stormwater basin with the following language: “There is an airport nearby. This stormwater basin is designed to hold stormwater for only 48 hours and not attract birds. Proper maintenance is necessary to avoid bird strikes.” The sign will also include the name, telephone number or other contact information of the person or entity responsible to monitor the stormwater basin.

Level of Significance After Mitigation: Less Than Significant.

Off-Site Improvements. Implementation of the Project will result in off-site physical disturbances to up to 59.0 acres of off-site land to install utility and road improvements including but not limited to the widening of SR-74, Menifee Road, and Briggs Road. These improvements include roadway improvements and subsurface utility line installations and connections along Briggs Road, Menifee Road, and SR-74; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the Project site’s southern boundary; and the installation of a nonvehicular bridge across Matthews Road and railroad tracks southwest of and parallel to Matthews Road to connect the Project site with the Heritage Lake community to the south.

Construction. Similar to the proposed Project, construction of the proposed off-site improvements would comply with existing NPDES regulations (as specified in **RCM WQ-1**, **RCM WQ-2**, and **RCM WQ-3**), which include preparation of a SWPPP and Erosion Control Plan, implementation of Construction BMPs to target and reduce pollutants of concern in storm water runoff (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash), and compliance with all applicable provisions in the Groundwater Discharge Permit. Compliance with regulatory requirements would ensure that impacts related to violation of any water quality standards or waste discharge requirements, or the degradation of surface or groundwater quality, during construction would be **less than significant**, and no additional mitigation to address off-site improvements is required.

Operation. Similar to the proposed Project, operation of the proposed off-site improvements would not require groundwater extraction. Furthermore, the areas where the off-site improvements will occur are already primarily developed with impervious roadways. Similar to the soils at the Project site, the soils in the off-site improvement locations have low permeability. Therefore, there is not a direct path for pollutants to reach groundwater. Proposed off-site improvements include roadway improvements, subsurface utility line installations and connections, and the installation of a pedestrian bridge; operation of these improvements would not require the consumption of any water resources or result in any new significant water quality impacts when compared to baseline conditions. Additionally, the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially interfere with groundwater recharge. Similar to project operations, operational activities associated with the proposed off-site improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). Therefore, impacts related to a violation of any water quality standards or waste discharge requirements and/or degradation of surface or groundwater water quality during operation of the proposed off-site improvements would be **less than significant**, and no mitigation to address off-site improvements is required.

Off-Site Roadway Improvements. Implementation of the Project would also result in off-site roadway improvements to address traffic impacts in conflict with the General Plan Circulation Element policies that strive to maintain desired LOS. These roadway improvements, which include widening and additional turn lanes as required, include Matthews Road/Case Road (between McLaughlin Road and Ethanac Road), McLaughlin Road (between Matthews Road/Case Road and Menifee Road), and McCall Boulevard (between Encanto Drive and Menifee Road). These roadway improvements were identified in the General Plan Circulation Element and included in the Final General Plan Environmental Impact Report (EIR) certified by the City on December 18, 2013 (Certified 2013 EIR).

Construction. The Certified 2013 EIR indicated LID and water quality treatment solutions prescribed in project-specific WQMPs would be designed to support or enhance the regional BMPs and efforts implemented by the City and new construction and development of land uses designated in the proposed General Plan would require projects to plan BMPs for four general

phases of construction: (1) grading and land development (e.g., mass grade and rough grade), (2) utility and road installation, (3) vertical construction, and (4) final stabilization and landscaping. Similar to the proposed Project, construction of the proposed off-site improvements would comply with existing NPDES regulations (as specified in **RCM WQ-1, RCM WQ-2, and RCM WQ-3**), which include preparation of a SWPPP and Erosion Control Plan, implementation of Construction BMPs to target and reduce pollutants of concern in storm water runoff (e.g., soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash), and compliance with all applicable provisions in the Groundwater Discharge Permit. Compliance with regulatory requirements would ensure that impacts related to violation of any water quality standards or waste discharge requirements, or the degradation of surface or groundwater quality, during construction would be **less than significant**, and no mitigation to address off-site improvements is required.

Operation. Similar to the proposed Project, operation of the proposed off-site improvements would not require groundwater extraction. Furthermore, the areas where the off-site improvements will occur are already primarily developed with impervious roadways. Similar to the soils at the Project site, the soils in the off-site improvement locations have low permeability. Therefore, there is not a direct path for pollutants to reach groundwater. Operation of these off-site roadway improvements would not require the consumption of any water resources or result in any new significant water quality impacts when compared to baseline conditions. Additionally, the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially interfere with groundwater recharge. Similar to project operations, operational activities associated with the proposed off-site improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). Therefore, impacts related to a violation of any water quality standards or waste discharge requirements and/or degradation of surface or groundwater water quality during operation of the proposed off-site improvements would be **less than significant**, and no mitigation to address off-site improvements is required.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: RCMs WQ-1, WQ-2, WQ-3, and WQ-4 would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

4.10.6.2 Groundwater

Threshold 4.10-2: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

The Project site is located within the boundary of the San Jacinto Basin.

On-Site Improvements.

Construction. According to the *Preliminary Geotechnical Evaluation* prepared for the proposed Project,²² groundwater was encountered between approximately 33 and 40 feet below existing grade. This information is consistent with groundwater data collected during previous site explorations in 2004, which identified groundwater depths to be between approximately 37 and 68 feet below existing grade. Infiltration tests were completed at the Project site in six different locations, the results of which are summarized in **Table 4.10.D** below. Field testing resulted in unfactored infiltration rates ranging from 0.06 to 0.55 inches per hour. The infiltration rates do not include a factor of safety. The site will consist of compacted fill over shallow dense formational soils with very low permeability, and therefore the site is anticipated to have very low to nonexistent infiltration rates after earthwork is completed. Therefore, construction of the proposed project would not interfere with groundwater recharge.

Table 4.10.D: Summary of Infiltration Testing

Infiltration Test Location	Infiltration Test Depth Below Existing Grade (feet)	Observed Infiltration Rate (Inch/Hour)
I-1	4.5	0.06
I-2	8	0.15
I-3	10.1	0.31
I-4	3	0.15
I-5	1	0.23
I-6	6	0.55

Due to the fact that groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present near the surface, groundwater dewatering may be required during project construction. However, compared estimated 2,700,000-acre feet of groundwater in storage in the San Jacinto Groundwater Basin, the amount of water that would be extracted would not be substantial and would only occur temporarily during construction. Under existing conditions, the soils on the Project site have low permeability and the Project site is not a source of significant groundwater recharge. Therefore, any temporary dewatering required by construction would not significantly decrease groundwater supplies or interfere with groundwater recharge in a manner that may impede sustainable groundwater management. Impacts would be **less than significant**, and no mitigation is required.

Operation. Development of the proposed Project would increase impervious surface area by approximately 430 acres, which would decrease the potential for on-site infiltration. The project includes landscaped areas, ballfields, greenbelt, and open space areas, which will provide pervious areas where storm water runoff can collect and continue to infiltrate. However, under existing conditions, the soils on the Project site have low permeability and the Project site is not

²² LGC Geotechnical. 2018. Preliminary Geotechnical Evaluation and Design Recommendations for the Proposed Approximately 580-Acre "Menifee Valley" Residential Development, City of Menifee, California. May 25.

a source of significant groundwater recharge. Therefore, compared to the total infiltration area within the 248 square mile (158,720 acre) groundwater basin, the increase in impervious surface area that will result from the development of the proposed project would not significantly decrease groundwater supplies or interfere with groundwater recharge in a manner that may impede sustainable groundwater management.

Water is supplied to Menifee from Eastern Municipal Water District (EMWD), whose supply portfolio includes desalinated brackish groundwater, recycled water, potable groundwater, and imported water. A *Water Supply Assessment* was prepared for the proposed Project²³ by EMWD and determined that the proposed Project would have adequate water supplies during normal, dry year, and multiple dry year demands. Furthermore, approximately 39 percent of The San Jacinto Groundwater Basin is adjudicated under three separate adjudications. EMWD has an adjusted base production right of 7,303 acre-feet from the Hemet/San Jacinto area which is adjudicated by the Hemet-San Jacinto Watermaster and located in the eastern portion of EMWD's service area. Therefore, it is expected that the proposed Project would rely on existing groundwater entitlements to serve the proposed Project's water needs and would not contribute to a substantial depletion of groundwater supplies.

Therefore, project impacts related to depletion of groundwater supplies or interference with groundwater recharge in a manner that may impede sustainable groundwater management would be ***less than significant***, and no mitigation would be required.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: No Regulatory Compliance Measures or Mitigation Measures are required.

Level of Significance After Mitigation: Less Than Significant.

Off-Site Improvements. Implementation of the Project will result in off-site physical disturbances to up to 59.0 acres of off-site land to install utility and road improvements including but not limited to the widening of SR-74, Menifee Road, and Briggs Road. These improvements include roadway improvements and subsurface utility line installations and connections along Briggs Road, Menifee Road, and SR-74; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the Project site's southern boundary; and the installation of a nonvehicular bridge across Matthews Road and railroad tracks southwest of and parallel to Matthews Road to connect the Project site with the Heritage Lake community to the south.

Construction. Similar to the proposed Project, the amount of groundwater, if any, that would be extracted during construction of the proposed off-site improvements would not be substantial and would only occur temporarily during construction. Under existing conditions, the areas where the off-site improvements will occur are already primarily developed with impervious roadways and the soils in the off-site improvement areas have low permeability; therefore, the off-site improvement areas are not a source of significant groundwater recharge. Therefore, any temporary dewatering required by construction of the off-site improvements would not

²³ Eastern Municipal Water District. September 2021. *Water Supply Assessment Report, Menifee Valley Specific Plan*.

significantly decrease groundwater supplies or interfere with groundwater recharge in a manner that may impede sustainable groundwater management. Impacts would be ***less than significant***, and no mitigation is required.

Operation. Proposed off-site improvements include roadway improvements, subsurface utility line installations and connections, and the installation of a pedestrian bridge; operation of these improvements would not require the consumption of any water resources or the extraction of any groundwater. Additionally, the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially interfere with groundwater recharge. Therefore, impacts related to depletion of groundwater supplies or interference with groundwater recharge in a manner that may impede sustainable groundwater management would be ***less than significant***, and no mitigation would be required.

Off-Site Roadway Improvements. Implementation of the Project would also result in off-site roadway improvements to address traffic impacts in conflict with the General Plan Circulation Element policies that strive to maintain desired LOS. These roadway improvements, which include widening and additional turn lanes as required, include Matthews Road/Case Road (between McLaughlin Road and Ethanac Road), McLaughlin Road (between Matthews Road/Case Road and Menifee Road), and McCall Boulevard (between Encanto Drive and Menifee Road). These roadway improvements were identified in the General Plan Circulation Element and included in the Certified 2013 EIR.

The Certified 2013 EIR found that because there are no percolation basins or other areas in the City used for intentional recharge of groundwater basins, implementation of the General Plan, which includes the off-site roadway improvements, would not substantially interfere with intentional groundwater recharge. Therefore, impacts related to depletion of groundwater supplies or interference with groundwater recharge in a manner that may impede sustainable groundwater management would be ***less than significant***, and no mitigation would be required.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: No Regulatory Compliance Measures or Mitigation Measures are required.

Level of Significance After Mitigation: Less Than Significant.

4.10.6.3 Drainage Patterns

Threshold 4.10-3: Would the Project substantially alter the existing drainage pattern of the Project 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 that would result in flooding on or off site; (iii) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (iv) Impede or redirect flood flows?

Threshold 4.10-3(i): Result in substantial erosion or siltation on or off site?

On-Site Improvements. The Project site is largely undeveloped and consists primarily of agricultural land and associated unpaved roadways along the perimeter of the Project site and bisecting the site in an east/west and north/south direction. Under existing conditions, the Project site is split into six planning areas that generally drain in a southwesterly direction toward Menifee Road. The Project site is part of the Romoland Master Drainage Plan, and Romoland Line A runs through the Project site and has been designed to have sufficient capacity to carry storm water flow for the planned residential land uses at the Project site.

Construction. During Project construction activities, soil would be exposed and disturbed, and drainage patterns would be temporarily altered during grading and other construction activities. Therefore, there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. The CGP that would be obtained by the Project Applicant requires preparation of a SWPPP (**RCM WQ-1**), and City of Menifee Ordinance 2019-287 Grading Regulations, Section 8.26.060, requires preparation of an Erosion Control Plan (**RCM WQ-2**). The SWPPP and Erosion Control Plan would detail Erosion Control and Sediment Control BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) to be implemented during Project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the CGP and City Ordinance 2019-287 and with implementation of the construction BMPs, construction impacts related to on- or off-site erosion or siltation would be *less than significant*, and no mitigation is required.

Operation. The proposed Project would add approximately 430 acres of impervious surface area, which is not prone to on-site erosion or siltation because these areas would be converted to developed or paved areas and there would be no exposed soil. The remaining Project site would consist of pervious surfaces including landscaped areas, ballfields, greenbelt, and open space areas. These areas would include vegetation and landscaping that would stabilize the soil and promote infiltration and thereby minimize on-site erosion and siltation. Therefore, on-site erosion and siltation impacts would be minimal.

The proposed Project would increase impervious area on the Project site by approximately 430 acres, which would result in a net increase in storm water runoff that can lead to downstream erosion in receiving waters. However, consistent with the requirements of the City of Menifee's Municipal Code and County's hydromodification criteria, the proposed Project includes nine drainage management areas and would include the construction of eight bioretention basins and two detention basins, as shown in **Figure 4.10-5: Proposed Condition**. The detention basins would be sized to detain the peak flow for a 100-year 3-hour storm and the 2-year 24-hour storm as part of the hydromodification requirements. Collecting and retaining storm water runoff would prevent sediment from being washed off site and impacting downstream receiving waters. Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the ALUC, which requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm and

remain totally dry between rainfalls as detailed in **MM HAZ-2**. With implementation of **RCM WQ-4**, which requires the proposed Project to comply with the hydromodification requirements of the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit and reduce storm water runoff from the Project site, and **RCM WQ-5**, which requires the preparation of a Final Hydrology and Hydraulic Analyses that provides BMPs and Low Impact Developments (LIDs) that are consistent with the requirements of the Riverside County Flood Control and Water Conservation District Hydrology Manual and the Riverside County Flood Control Water Conservation District Design Handbook for Low Impact Development Best Management Practices, operation impacts related to substantial on- or off-site erosion or siltation would be *less than significant with mitigation incorporated*.

Threshold 4.10-3(ii): Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site? and,

Threshold 4.10-3(iv): Impede or redirect flood flows?

On-Site Improvements.

Construction. Project construction would comply with the requirements of the CGP and would include the preparation and implementation of a SWPPP pursuant to **RCM WQ-1**. The SWPPP would include construction BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) to control the rate and amount of on-site surface runoff and to direct flows to ensure that storm water runoff from the construction site does not result in on- or off-site flooding. With adherence to **RCM WQ-1**, construction impacts related to a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters would be *less than significant*, and no mitigation is required.

Operation. Implementation of the proposed Project would alter the on-site drainage pattern when compared to existing conditions. In the proposed condition, the Project site would be split into six planning areas and nine drainage management areas. The proposed project's conceptual drainage plan consists of bioretention basins, detention basins, storm drains, and pipes ranging from 30 to 72 inches, as shown in **Figure 4.10-5: Proposed Condition**.

Proposed bioretention basins placed in eight locations throughout the Project site would capture storm water runoff from on-site impervious surface areas. The proposed project would also include two detention basins, which would be sized to detain the peak flow for a 100-year 3-hour storm and the 2-year 24-hour storm as part of the hydromodification requirements. Each of the basins would provide storm water treatment and peak flow mitigation before discharging to Riverside County Flood Control and Water Conservation District maintained storm drains and eventually into the San Jacinto River. Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the ALUC, which requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm, and remain totally dry between rainfalls as detailed in **RCM HAZ-2**. Therefore,

Project operation would not result in on- or off-site flooding or impede or redirect flood flows due to modifications to on-site drainage patterns.

As specified in **RCM WQ-5**, a Final Hydrology Study would be required to be prepared and submitted to the City of Menifee and Riverside County Flood Control and Water Conservation District for approval. The Final Hydrology Study shall confirm that the proposed drainage system would meet the hydromodification requirements of the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit. With implementation of **RCM WQ-4** and **RCM WQ-5**, impacts related to an increase in the rate or amount of surface runoff in a manner that would result in on- or off-site flooding would be *less than significant*, and no mitigation is required.

Threshold 4.10-3(iii): Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

On-Site Improvements.

Construction. Construction of the proposed Project has the potential to introduce pollutants to storm water that percolate into the ground or that flow into San Jacinto Creek, due to erosion, siltation, and accidental spills of hazardous materials. However, as specified in **RCM WQ-1** and **RCM WQ-2**, the CGP requires preparation of a SWPPP, and the City of Menifee requires preparation of an Erosion Control Plan. Implementation of construction BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) that target pollutants of concern in runoff from the Project site and erosion and sediment control measures would prevent substantial additional sources of polluted runoff being discharged into San Jacinto Creek. The SWPPP would include construction BMPs to control and direct surface runoff on the Project site and would include detention measures, if required, to ensure that storm water runoff from the construction activities does not exceed the capacity of the storm water drainage systems. For these reasons, construction impacts related to creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be *less than significant*, and no mitigation is required.

Operation. Storm water will surface flow to bioretention and detention basins, which would be sized to detain the peak flow for a 100-year 3-hour storm and the 2-year 24-hour storm as part of the hydromodification requirements. Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the ALUC, which requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm, and remain totally dry between rainfalls as detailed in **MM HAZ-2**. Furthermore, the proposed Project would be required to implement **RCM WQ-4**, which requires implementation of operational BMPs that target and reduce pollutants of concern in storm water runoff. Therefore, operational impacts related to creation or contribution of storm water runoff that would exceed the capacity of existing or planned storm water drainage systems or

provide substantial additional sources of polluted runoff would be **less than significant**, and no mitigation is required.

Level of Significance Prior to Mitigation: Potentially Significant.

Regulatory Compliance Measures and Mitigation Measures: RCMs WQ-1, WQ-2, WQ-3, WQ-4, and MM HAZ-2 would be implemented as part of the proposed Project. In addition, the following RCM would be implemented as part of the proposed Project:

RCM WQ-5 Prior to issuance of a grading permit, the Applicant shall submit a Final Hydrology and Hydraulic Analyses to the City Engineer/Public Works Director or designee and the Riverside County Flood Control and Water Conservation District for review and approval. The Final Hydrology and Hydraulic Analyses shall be prepared consistent with the requirements of the *Riverside County Flood Control and Water Conservation District Hydrology Manual* and the *Riverside County Flood Control Water Conservation District Design Handbook for Low Impact Development Best Management Practices*, and Phase I MS4 Permit R8-2010-0033, NPDES No. CAS 618033 as amended by Order No. R8-2013-0024. The City Engineer/Public Works Director, or designee, shall ensure that the drainage facilities specified in the Final Hydrology and Hydraulic Analyses are incorporated into the final Project design.

Level of Significance After Mitigation: Less Than Significant.

Off-Site Improvements (i-iv). Implementation of the Project will result in off-site physical disturbances to up to 59.0 acres of off-site land to install utility and road improvements including but not limited to the widening of SR-74, Menifee Road, and Briggs Road. These improvements include roadway improvements and subsurface utility line installations and connections along Briggs Road, Menifee Road, and SR-74; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the Project site's southern boundary; and the installation of a nonvehicular bridge across Matthews Road and railroad tracks southwest of and parallel to Matthews Road to connect the Project site with the Heritage Lake community to the south.

Construction. Similar to the proposed Project, construction of the proposed off-site improvements would be required to comply with the CGP and preparation of a SWPPP and Erosion Control Plan would be required in accordance with **RCM WQ-1** and **RCM WQ-2**. Compliance with the CGP and implementation of construction BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) would ensure that construction impacts related to (1) on- or off-site erosion or siltation; (2) a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters; or (3) creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be **less than significant**, and no mitigation to address off-site improvements is required.

Operation. Proposed off-site improvements include roadway improvements, subsurface utility line installations and connections, and the installation of a bridge; operation of these improvements would not result in any changes to existing drainage patterns after the completion of initial construction activities. Additionally, the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially alter existing drainage patterns. Therefore, operation impacts related to (1) on- or off-site erosion or siltation; (2) a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters; or (3) creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be **less than significant**, and no mitigation to address off-site improvements is required.

Off-Site Roadway Improvements (i-iv). Implementation of the Project would also result in off-site roadway improvements to address traffic impacts in conflict with the General Plan Circulation Element policies that strive to maintain desired LOS. These roadway improvements, which include widening and additional turn lanes as required, include Matthews Road/Case Road (between McLaughlin Road and Ethanac Road), McLaughlin Road (between Matthews Road/Case Road and Menifee Road), and McCall Boulevard (between Encanto Drive and Menifee Road). These roadway improvements were identified in the General Plan Circulation Element and included in the Certified 2013 EIR.

Construction. Similar to the proposed Project, construction of the proposed off-site roadway improvements would be required to comply with the CGP, and preparation of a SWPPP and Erosion Control Plan would be required in accordance with **RCM WQ-1 and RCM WQ-2**. Compliance with the CGP and implementation of construction BMPs (e.g., soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) would ensure that construction impacts related to (1) on- or off-site erosion or siltation; (2) a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters; or (3) creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be **less than significant**, and no mitigation to address off-site roadway improvements is required.

Operation. Operation of the off-site roadway improvements would not result in any changes to existing drainage patterns after the completion of initial construction activities. Additionally, the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially alter existing drainage patterns. Therefore, operation impacts related to (1) on- or off-site erosion or siltation; (2) a substantial increase in the rate or amount of surface runoff that would result in flooding and impede or redirect flood waters; or (3) creation or contribution of runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be **less than significant**, and no mitigation to address off-site improvements is required.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: No mitigation measures are required. RCMs WQ-1 and WQ-2 would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

4.10.6.4 Flood, Tsunami, Seiche Zones

Threshold 4.10-4: In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?

On-Site Improvements.

Tsunami. The Project site is approximately 34 miles northeast of the Pacific Ocean. Based on the distance from the Pacific Ocean, the Project site is not located in a tsunami hazard zone and therefore would not be susceptible to impacts associated with a tsunami.

Seiches. Seiches are waves that are created in an enclosed body of water such as a bay, lake, or harbor and go up and down or oscillate and do not progress forward like standard ocean waves. Seiches are also referred to as standing waves and are triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunamis, or tidal influence. The height and frequency of seiches are determined by the strength of the triggering factor(s) and the size of the basin. The Project site is approximately 5.5 miles northwest of Diamond Valley Lake and 7 miles southeast of Lake Perris, which are enclosed bodies of water which can be subject to seiches during an earthquake event. Therefore, because impacts from seiches are very localized and the Project site is located miles from enclosed bodies of water, it is not anticipated that the Project site would be susceptible to impacts associated with a seiche.

Dam Inundation. As previously discussed, there are two lakes in the nearby vicinity of the Project site including the Diamond Valley Lake and Lake Perris. According to the Safety Element of the City of Menifee General Plan²⁴ (Exhibits S-B2.2, S-B2.3, S-B2.4, S-B2.6, and S-B2.7), the Project site is not located within the Dam Failure Inundation Pathway of either lake. Therefore, it is not anticipated that the proposed Project would result in the release of pollutants due to inundation caused by dam failure.

Flooding. According to FEMA Flood Insurance Rate Map (FIRM) No. 06065C2060H (effective August 18, 2014), portions of the northeastern, central, and southwestern areas of the Project site are located in Flood Hazard Zone X (shaded). Flood Zone X (shaded) is defined as 0.2% Annual Chance Flood Hazard, or areas of 1% annual chance flood with average depth less than 1 foot or with drainage areas of less than 1 square mile. Small portions in the center of the Project site are within Flood Hazard Zone A. Flood Zone A includes areas located within the 100-year floodplain subject to inundation by the 1-percent-annual-chance flood event. **Figure 4.10-4** shows the FEMA Mapping of the Project site and the location of the Flood Zone A and X areas on site. The proposed structures would be constructed so they are located above the 100-year floodplain. The proposed project would be required to obtain a CLOMR from FEMA commenting

²⁴ City of Menifee. 2021. General Plan, Safety Element.

on whether the proposed project, if built as proposed, would meet minimum National Flood Insurance Program standards. Additionally, a LOMR from FEMA would be required which would officially revise the current NFIP map to remove portions of the project site from the 100-year floodplain.

During construction, BMPs (e.g. soil binders, straw mulch, non-vegetative stabilization, fiber rolls, sandbag barrier, straw bale barrier, stabilized construction entrance/exit, stabilized construction roadway, and entrance/outlet tire wash) would be implemented to ensure that during a rain event, pollutants would be retained on site and be prevented from reaching downstream receiving waters in accordance with **RCM WQ-1** and **WQ-2**. During operations, the Project would include eight bioretention basins and two detention basins pursuant to **RCM WQ-4**, as shown in **Figure 4.10-5**, that would be sized to detain the peak flow for a 100-year 3-hour storm and the 2-year 24-hour storm as part of the hydromodification requirements. Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the ALUC, which requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm, and remain totally dry between rainfalls as detailed in **MM HAZ-2**. Therefore, it is not anticipated that the proposed Project would result in the release of pollutants due to inundation caused by flooding.

Based on the discussion and analysis above, implementation of the proposed Project in accordance with **RCMs WQ-1, WQ-2, and WQ-4** and adherence to **MM HAZ-2** would not result in a risk of the release of pollutants from a flood, tsunami, seiche, or dam inundation. Impacts would be **less than significant** with mitigation.

Level of Significance Prior to Mitigation: Potentially Significant.

Regulatory Compliance Measures and Mitigation Measures: **RCMs WQ-1, WQ-2, WQ-4,** and **MM HAZ-2** would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

Off-Site Improvements. Implementation of the Project will result in off-site physical disturbances to up to 59.0 acres of off-site land to install utility and road improvements including but not limited to the widening of SR-74, Menifee Road, and Briggs Road. These improvements include roadway improvements and subsurface utility line installations and connections along Briggs Road, Menifee Road, and SR-74; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the Project site's southern boundary; and the installation of a nonvehicular bridge across Matthews Road and railroad tracks southwest of and parallel to Matthews Road to connect the Project site with the Heritage Lake community to the south.

Tsunami. Similar to the proposed Project, the proposed off-site improvements are approximately 34 miles northeast of the Pacific Ocean and are not located in a tsunami hazard zone and therefore would not be susceptible to impacts associated with a tsunami.

Seiches. Similar to the proposed Project, the proposed off-site improvements are over 5 miles away from any enclosed bodies of water which could be subject to seiches during an earthquake event. Therefore, similar to the proposed Project, it is not anticipated that the construction and

operation of the proposed off-site improvements would be susceptible to impacts associated with a seiche because impacts from seiches are very localized and the off-site improvements are located miles from enclosed bodies of water.

Dam Inundation. Similar to the proposed Project, the proposed off-site improvements are not located within the Dam Failure Inundation Pathway of any lakes. Therefore, similar to the proposed Project, it is not anticipated that the construction and operation of the proposed off-site improvements would result in the release of pollutants due to inundation caused by dam failure.

Flooding. Similar to the proposed Project, during construction of the proposed off-site improvements, BMPs in accordance with **RCM WQ-1** and **RCM WQ-2** would be implemented to ensure that during a rain event, pollutants would be retained on site and be prevented from reaching downstream receiving waters. Proposed off-site improvements include roadway improvements, subsurface utility line installations and connections, and the installation of a pedestrian bridge; after the completion of construction, operation of these improvements would not result in an increased risk of pollutant release during a 100-year storm event when compared to baseline conditions. Additionally, as previously discussed, operational activities associated with the proposed off-site improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). Impacts would be *less than significant*, and no mitigation is required to address off-site improvements.

Off-Site Roadway Improvements. Implementation of the Project would also result in off-site roadway improvements to address traffic impacts in conflict with the General Plan Circulation Element policies that strive to maintain desired LOS. These roadway improvements, which include widening and additional turn lanes as required, include Matthews Road/Case Road (between McLaughlin Road and Ethanac Road), McLaughlin Road (between Matthews Road/Case Road and Menifee Road), and McCall Boulevard (between Encanto Drive and Menifee Road). These roadway improvements were identified in the General Plan Circulation Element and included in the Certified 2013 EIR.

The Certified 2013 EIR found that impacts associated with tsunamis, seiches, dam inundation, and flooding would be less than significant with City and CEQA review.

Tsunami. Similar to the proposed Project, the proposed off-site roadway improvements are approximately 34 miles northeast of the Pacific Ocean and are not located in a tsunami hazard zone and therefore would not be susceptible to impacts associated with a tsunami.

Seiches. Similar to the proposed Project, the proposed off-site improvements are over 5 miles away from any enclosed bodies of water which could be subject to seiches during an earthquake event. Therefore, similar to the proposed Project, it is not anticipated that the construction and operation of the proposed off-site improvements would be susceptible to impacts associated with a seiche, because impacts from seiches are very localized and the off-site improvements are located miles from enclosed bodies of water.

Dam Inundation. Similar to the proposed Project, the proposed off-site improvements are not located within the Dam Failure Inundation Pathway of any lakes or dams. Therefore, similar to the proposed Project, it is not anticipated that the construction and operation of the proposed off-site improvements would result in the release of pollutants due to inundation caused by dam failure.

Flooding. Similar to the proposed Project, during construction of the proposed off-site improvements, BMPs in accordance with **RCM WQ-1 and RCM WQ-2** would be implemented to ensure that during a rain event, pollutants would be retained on site and be prevented from reaching downstream receiving waters. Operation of the off-site roadway improvements would not result in an increased risk of pollutant release during a 100-year storm event when compared to baseline conditions. Additionally, as previously discussed, operational activities associated with the proposed off-site roadway improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). Impacts would be **less than significant**, and no mitigation is required to address off-site improvements.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: No mitigation measures are required. **RCMs WQ-1, WQ-2, and WQ-4** would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

4.10.6.5 Conflict with Water Quality Control Plan or Groundwater Management Plan

Threshold 4.10-5: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

On-Site Improvements. The Project site is within the jurisdiction of the Santa Ana RWQCB. The Santa RWQCB adopted a Basin Plan that designates beneficial uses for all surface and groundwater within its jurisdiction and establishes the water quality objectives and standards necessary to protect those beneficial uses. The proposed Project would comply with existing Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit requirements and would implement construction and operational BMPs to reduce pollutants of concern in storm water runoff (**RCM WQ-1 through RCM WQ-4**). Additionally, the proposed bioretention and detention basins would be subject to conditions imposed by the ALUC, which requires stormwater basins to be designed and maintained to provide for a maximum 48-hour drawdown following the design storm and remain totally dry between rainfalls as detailed in **MM HAZ-2**. Compliance with these regulatory requirements would ensure that the proposed Project would not degrade or alter water quality, causing the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. As such, the proposed Project would not result in water quality impacts that would conflict with the Santa Ana RWQCB Santa Ana River Water Quality Control Plan (Basin Plan). Construction and operational impacts related to a conflict with the Basin Plan would be **less than significant with mitigation incorporated**.

The SGMA, which was enacted in September 2014, requires governments and water agencies of high- and medium-priority basins to halt overdraft of groundwater basins. The SGMA requires the formation of local GSAs, which are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. The Project site is in the San Jacinto Groundwater Basin, which the California Department of Water Resources designates as a high priority basin.²⁵ The Groundwater Sustainability Agency identified for the San Jacinto Groundwater Basin is Eastern Municipal Water District (EMWD).

The San Jacinto Groundwater Sustainability Plan Public Draft (GSP) was finalized in September 2021. SGMA does not apply to adjudicated basins; therefore, the sustainability goal and sustainability management criteria defined in the GSP apply only to the Plan Area, which is the non-adjudicated part of the San Jacinto Groundwater Basin (SJGB), because the remaining areas of the SJGB are under the oversight of a Court appointed watermaster. The plan indicates that groundwater levels within the Basin have been rising and that groundwater recharge likely exceeded groundwater production since the mid-1970s. The sustainability goal for the Plan Area is to manage groundwater resources in a way that facilitates long-term sustainable use of groundwater in the San Jacinto Groundwater Basin.²⁶ Long-term sustainable management includes:

- Maintaining sufficient groundwater in storage to allow for ongoing groundwater production that meets the operational demands of groundwater users in the Plan Area.
- Protecting fresh groundwater resources in the Lakeview and Perris North Groundwater Management Zones (GMZs) to the extent possible, by minimizing the northward and eastward migration of brackish groundwater from the Perris South GMZ.
- Avoiding subsidence related to groundwater production that substantially interferes with surface land uses.
- Ensuring that groundwater production does not result in significant and unreasonable loss of Groundwater Dependent Ecosystems.

The GSP identifies four projects and three management actions to support implementation efforts of the GSP. Management actions include adjusting groundwater production as needed to meet water level and/or water quality objectives; imposing a recharge or imported water purchase/pumping offset fee; and developing a groundwater allocation. Projects include assessing feasibility of recycled water delivery to private producers in the Meniffee production area; conducting additional investigations and/or technical studies; constructing additional dedicated monitoring wells; and determining the location and status of domestic wells in the plan area.²⁷

Groundwater dewatering may be required during project construction. Groundwater dewatering activities could affect surface water quality through the discharge of polluted groundwater to surface water bodies. As specified in **RCM WQ-3**, groundwater dewatering activities would comply

²⁵ Eastern Municipal Water District. 2021. Op. cit.

²⁶ Eastern Municipal Water District. 2021. Op. cit.

²⁷ Eastern Municipal Water District. 2021. Op. cit.

with the Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality (Groundwater Discharge Permit) (Order No. R8-2020-0006, NPDES No. CAG998001). In compliance with the requirements of the Groundwater Discharge Permit, groundwater would be tested and treated (if necessary) prior to discharge to surface water. Compliance with the Groundwater Discharge Permit would ensure that construction impacts related to a decrease in groundwater supplies or interference with groundwater recharge in a manner that may impede sustainable groundwater management would be ***less than significant***.

The proposed Project would increase water use, which would be partially obtained from groundwater. However, as previously discussed, the *Water Supply Assessment* completed for the proposed Project²⁸ by EMWD indicates that there are adequate water supplies from groundwater sources during normal, dry year, and multiple dry year demands to serve the proposed Project's needs. As specified in **RCM WQ-3**, groundwater dewatering activities would comply with the Groundwater Discharge Permit and groundwater would be tested and treated (if necessary) prior to discharge to surface water. As previously discussed, the increase in impervious surface areas would not substantially decrease infiltration compared to existing conditions because the soils on the Project site have low permeability and the Project site is not a source of significant groundwater recharge under existing conditions. Additionally, the proposed Project would be designed to collect storm water flows from impervious areas into bioretention and detention basins and route flow to the existing storm drain system where flows would be conveyed into San Jacinto Creek and eventually Lake Elsinore, therefore contributing to infiltration to the groundwater basin at Lake Elsinore. For these reasons, the proposed Project would not conflict with or obstruct the implementation of a sustainable groundwater management plan. Therefore, construction and operational impacts related to conflict with or obstruction of water quality control plans or sustainable groundwater management plans would be ***less than significant with mitigation incorporated***.

Level of Significance Prior to Mitigation: Potentially Significant

Regulatory Compliance Measures and Mitigation Measures: RCMs WQ-1, WQ-2, WQ-3, WQ-4, and MM HAZ-2 would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

Off-Site Improvements. Implementation of the Project will result in off-site physical disturbances to up to 59.0 acres of off-site land to install utility and road improvements including but not limited to the widening of SR-74, Menifee Road, and Briggs Road. These improvements include roadway improvements and subsurface utility line installations and connections along Briggs Road, Menifee Road, and SR-74; the installation of subsurface utility lines in the alignment of Matthews Road along segments of the Project site's southern boundary; and the installation of a nonvehicular bridge across Matthews Road and railroad tracks southwest of and parallel to Matthews Road to connect the Project site with the Heritage Lake community to the south.

²⁸ Eastern Municipal Water District. September 2021. Water Supply Assessment Report, Menifee Valley Specific Plan.

Construction. Similar to the proposed Project, construction of the proposed off-site improvements would comply with existing NPDES regulations (as specified in **RCM WQ-1**, **RCM WQ-2**, and **RCM WQ-3**), which include preparation of a SWPPP and Erosion Control Plan, implementation of Construction BMPs to target and reduce pollutants of concern in storm water runoff, and compliance with all applicable provisions in the Groundwater Discharge Permit. Similar to the proposed Project, the amount of groundwater, if any, that would be extracted during construction of the proposed off-site improvements would not be substantial and would only occur temporarily during construction. Under existing conditions, the soils on the site have low permeability and the Project site is not a source of significant groundwater recharge. Therefore, any temporary dewatering required by construction of the off-site improvements would not significantly decrease groundwater supplies or interfere with groundwater recharge in a manner that may impede sustainable groundwater management. The proposed off-site improvements would not obstruct implementation of a water quality control plan or sustainable groundwater management plan; impacts would be *less than significant*, and no additional mitigation is required to address off-site improvements.

Operation. Operation of the off-site improvements would not require the consumption of any water resources or the extraction of any groundwater, and the increase in impervious surfaces resulting from the proposed off-site improvements would be negligible and would not substantially interfere with groundwater recharge. Additionally, as previously discussed, any operational activities associated with the proposed off-site improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). The proposed off-site improvements would not obstruct implementation of a water quality control plan or sustainable groundwater management plan; impacts would be *less than significant*, and no additional mitigation is required to address off-site improvements.

Off-Site Roadway Improvements. Implementation of the Project would also result in off-site roadway improvements to address traffic impacts in conflict with the General Plan Circulation Element policies that strive to maintain desired LOS. These roadway improvements, which include widening and additional turn lanes as required, include Matthews Road/Case Road (between McLaughlin Road and Ethanac Road), McLaughlin Road (between Matthews Road/Case Road and Menifee Road), and McCall Boulevard (between Encanto Drive and Menifee Road). These roadway improvements were identified in the General Plan Circulation Element and included in the Certified 2013 EIR.

Construction. Similar to the proposed Project, construction of the proposed off-site roadway improvements would comply with existing NPDES regulations (as specified in **RCM WQ-1**, **RCM WQ-2**, and **RCM WQ-3**), which include preparation of a SWPPP and Erosion Control Plan, implementation of Construction BMPs to target and reduce pollutants of concern in storm water runoff, and compliance with all applicable provisions in the Groundwater Discharge Permit. Similar to the proposed Project, the amount of groundwater, if any, that would be extracted during construction of the proposed off-site improvements would not be substantial and would only occur temporarily during construction. Therefore, any temporary dewatering required by construction of the off-site improvements would not significantly decrease groundwater

supplies or interfere with groundwater recharge in a manner that may impede sustainable groundwater management. The proposed off-site improvements would not obstruct implementation of a water quality control plan or sustainable groundwater management plan; impacts would be **less than significant**, and no mitigation is required to address off-site improvements.

Operation. Operation of the off-site improvements would not require the consumption of any water resources or the extraction of any groundwater, and the increase in impervious surfaces resulting from the proposed off-site roadway improvements would be negligible and would not substantially interfere with groundwater recharge. Additionally, as previously discussed, any operational activities associated with the proposed off-site roadway improvements would be required to comply with the requirements of the MS4 Permit, including incorporation of operational BMPs to target pollutants of concern (as specified in **RCM WQ-4**). The proposed off-site improvements would not obstruct implementation of a water quality control plan or sustainable groundwater management plan; impacts would be **less than significant**, and no mitigation is required to address off-site improvements.

Level of Significance Prior to Mitigation: Less Than Significant.

Regulatory Compliance Measures and Mitigation Measures: No mitigation measures are required. **RCMs WQ-1, WQ-2, WQ-3, and WQ-4** would be implemented as part of the proposed Project.

Level of Significance After Mitigation: Less Than Significant.

4.10.7 Cumulative Impacts

Cumulative development in the Lower San Jacinto River Watershed is a continuation of the existing urban pattern of development that has already resulted in extensive modifications to watercourses in the area. The area's watercourses have been either channelized or left in natural conditions, and drainage systems have been put into place to respond to the past urbanization that has occurred in this area. The related projects associated with this cumulative analysis are discussed in **Chapter 2.0** of this EIR. Each of these related projects could potentially increase the volume of storm water runoff and contribute to pollutant loading in storm water runoff reaching the City's storm drain system, the San Jacinto River, and Lower San Jacinto River Watershed, thereby resulting in cumulative impacts to hydrology and surface water quality. In addition, the construction and operation of these projects could result in localized degradation of groundwater quality that could eventually impair the underlying aquifer's continued use if pollutant discharge quantities are large enough. Cumulative impacts to groundwater supply could also occur due to increases in impervious surfaces that impair groundwater recharge and increases in consumptive uses of groundwater.

Each related project must include BMPs to reduce construction- and operation-related impacts to water quality and hydrology in compliance with applicable NPDES permits and local plans and ordinances. Specifically, all projects that disturb 1 acre or more of soil must comply with the requirements of the CGP, and any "Significant Redevelopment" projects that add or replace 5,000 or more square feet of impervious surface on an already developed site or "New Development" projects that create 10,000 square feet or more of impervious surface must comply with the

requirements of the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit. Additionally, projects located within Menifee would be required to comply with the City of Menifee Municipal Code Chapters 8.26: Grading Regulations and Title 15: Water and Sewers. The preparation and approval of a SWPPP, erosion and sediment control plans (for construction), and a WQMP (for operation) would be required for each related project to determine appropriate BMPs to minimize water quality impacts and the volume of stormwater runoff. In addition, the preparation and approval of a hydrology study would be required to determine the hydrologic control required to minimize increases in runoff from each site so they do not exceed existing conditions or result in hydromodification impacts. The City's Public Works Department for projects within the city and the County Public Works Department for projects within the county review all development projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. Each related project must consider and address impacts to impaired receiving waters and TMDLs for receiving waters. The TMDL program is a cumulative approach to identifying all constituents that adversely affect the beneficial uses of water bodies and then identifying appropriate reductions in pollutant loads or concentrations from all sources so that the receiving waters can maintain/attain the beneficial uses in the Basin Plan. Thus, by complying with TMDLs, a project's cumulative impacts to overall water quality in the Santa Ana River Watershed is taken into account.

Each of the related projects within the boundary of the San Jacinto Basin would also be subject to the San Jacinto Groundwater Sustainability Plan and the Groundwater Discharge Permit, if groundwater dewatering is required. Additionally, other large scale projects would be required to prepare a Water Supply Assessment to determine if adequate water supplies would be available to support additional development during normal, dry year, and multiple dry year demands so as not to contribute to the depletion of water within the groundwater basins. Furthermore, the MS4 Permit Program requires the incorporation of LID techniques that mimic a project site's natural hydrology by using design measures that capture, filter, store, evaporate, detain, and infiltrate runoff rather than allowing runoff to flow directly to piped or impervious storm drains, thereby offsetting any negative impacts to groundwater quality and groundwater recharge that could result from increasing impervious surfaces. Compliance with these regional programs and permits constitutes compliance with programs intended to address the cumulative impacts of individual projects on groundwater sustainability and groundwater quality.

Regional programs and BMPs, such as TMDL programs and the MS4 Permit Program, have been designed under an assumption that the Santa Ana River Watershed would continue its pattern of urbanization. The regional programs and associated requirements are designed to address the cumulative effects of proposed development. The proposed Project would be required to comply with the requirements of the CGP and the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County Within the Santa Ana Region MS4 Permit and implement construction and operational BMPs to reduce pollutants in storm water runoff and address the volume of post project stormwater runoff. Compliance with these regional programs and permits constitutes compliance with programs intended to address cumulative water quality impacts. As stated above, each related project would be required to develop a project-specific SWPPP, erosion and sediment control plans, a WQMP, and a hydrology study and would be evaluated individually to determine appropriate BMPs and treatment measures

to reduce impacts to surface water quality and hydrology. Because the proposed Project and other cumulative projects would comply with applicable NPDES requirements and would include BMPs to reduce the volume of storm water runoff and pollutants of concern in storm water runoff, the cumulative hydrology and water quality impacts of the proposed Project and the related projects would be ***less than cumulatively significant***. Therefore, the proposed Project's incremental hydrology and water quality impacts would not be cumulatively considerable.