

4.9 Hydrology and Water Quality

This section evaluates the potential for impacts on hydrology and water quality resulting from implementation of Perris Airport Logistics Center Project (Proposed Project or Project). Hydrology concerns the distribution and circulation of water, both on land and underground. Water quality pertains to the condition of surface- and groundwater. Surface water includes lakes, rivers, streams, and creeks whereas groundwater is under the earth's surface. The analysis in this section is based in part on the following information:

- Perris Airport Logistics Center – West Preliminary Drainage Study, Albert A. Webb & Associates, June 2023 (Appendix G)
- Perris Airport Logistics Center – East Preliminary Drainage Study, Albert A. Webb & Associates, June 2023 (Appendix G)
- Perris Airport Logistics Center – Site 1, Preliminary Water Quality Management Plan, Albert A. Webb & Associates, June 2023 (Appendix H)
- Perris Airport Logistics Center – Site 2, Preliminary Water Quality Management Plan, Albert A. Webb & Associates, June 2023 (Appendix H)

4.9.1 Environmental Setting

The following sections describe the environmental setting for the Proposed Project as it relates to hydrology and water quality.

4.9.1.1 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address aesthetics.

Federal

Clean Water Act

The Federal Water Pollution Control Act (also known as the Clean Water Act) is the principal statute governing water quality. The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the U.S. Environmental Protection Agency (EPA) the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The Clean Water Act regulates both the direct and indirect discharge of pollutants into the nation's waters. The Clean Water Act sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The Clean Water Act mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The

Clean Water Act also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. Section 402 of the Clean Water Act requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant (except dredge or fill material) into waters of the U.S.

Safe Drinking Water Act

The Federal Safe Drinking Water Act provides regulations on drinking water quality in Perris. The Safe Drinking Water Act gives the EPA the authority to set drinking water standards, such as the National Primary Drinking Water regulations (primary standards). The National Primary Drinking Water regulations protect drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. All public water systems that provide service to 25 or more individuals are required to satisfy these legally enforceable standards. Water purveyors must monitor for these contaminants on fixed schedules and report to the EPA when a maximum contaminant level has been exceeded. A maximum contaminant level is the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Drinking water supplies are tested for a variety of contaminants, including organic and inorganic chemicals (e.g., minerals), substances that are known to cause cancer (e.g., carcinogens), radionuclides (e.g., uranium and radon), and microbial contaminants (e.g., coliform and *Escherichia coli*). Changes to the maximum contaminant level list are typically made every 3 years as the EPA adds new contaminants, or based on new research or new case studies, revises maximum contaminant levels for some contaminants. The California Department of Health Care Services, Division of Drinking Water and Environmental Management, is responsible for implementation of the Safe Drinking Water Act in California.

National Pollutant Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under Section 402 of the Clean Water Act, all facilities that discharge pollutants from any point source into waters of the U.S. are required to obtain an NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources are discharges from publicly owned treatment works, from industrial facilities, and associated with urban runoff. Though the NPDES program addresses certain specific types of agricultural activities, the majority of agricultural facilities are defined as nonpoint sources and are exempt from NPDES regulation. Pollutant contributors come from direct and indirect sources. Direct sources discharge directly to receiving waters, and indirect sources discharge wastewater to publicly owned treatment works, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are publicly owned treatment works that receive primarily domestic sewage from residential and

commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Non-municipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types, individual and general. Also, the EPA has recently focused on integrating the NPDES program further into watershed planning and permitting. The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure for minimizing and reducing pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, human-made channels and storm drains, designed or used for collecting and conveying stormwater) is the EPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a City) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to one acre. The City of Perris Public Works Department is the local enforcing agency of the MS4 NPDES permit.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Act to evaluate flood hazards. The Federal Emergency Management Agency (FEMA) provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as Flood Insurance Studies. The most recent flood insurance study and FIRM was completed and published for the County of Riverside in August 2008. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas on FIRMs.

The Project Site is located within Zone A (Special flood hazard areas subject to inundation by the 1 percent annual chance flood), as identified on FIRM Panel 2070 of 3805, Map Number 06065C2070H, Revised August 18, 2014. The Flood Disaster Protection Act requires owners of all structures in identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program afforded by FEMA. The National Flood Insurance Program is required to offer federally subsidized flood insurance to property owners in those communities that

adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the National Flood Insurance Program by providing a grant program for state and community flood mitigation projects. The Act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

State/Regional

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (Water Code, Sections 13000 et seq.) is the basic water quality control law for California. Under this act, the State Water Resources Control Board (State Water Board) has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the State Water Board. The state is divided into nine regions related to water quality and quantity characteristics. The State Water Board, through its nine Regional Water Quality Control Boards carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan or Basin Plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems.

The City of Perris, including the Project Site, is located within the Santa Ana River Basin, Region 8, in the Upper Santa Ana Watershed. The Water Quality Control Plan for the Santa Ana River Basin (8) was updated in 2019 (Basin Plan). The Basin Plan gives direction on the beneficial uses of the state waters within Region 8, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan.

On January 29, 2010, the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Water Board) issued the NPDES permit and Waste Discharge Requirements for the Riverside County Flood Control & Water Conservation District, the County of Riverside, and the incorporated cities of Riverside County Within the Santa Ana Region (Order No. R8-2010-0033 and NPDES No. CAS 618033). Order No. R8-2010-0033 regulates the way the Permittees manage urban runoff in the Santa Ana Region. This order renews Order No. R8-2002-001 and regulates discharges of urban runoff from the MS4s in the Riverside County portion of the Santa Ana Region. As part of the permit application, the Permittees submitted a revised Drainage Area Management Plan that contained programs, policies, and BMPs to achieve the water quality standards in receiving waters.

The State of California's Municipal Storm Water Permitting Program regulates stormwater discharges from municipal separate storm sewer (drain) systems (MS4s). Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. The MS4 permits require the discharger to develop and implement a storm water management program with the goal

of effectively prohibiting non-stormwater discharge and reducing the discharge of pollutants to the “maximum extent practicable,” which is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify which BMPs would be used to address certain program areas. The program areas include public education and outreach, illicit discharge detection and elimination, construction and post-construction, and good housekeeping for municipal operations. The Santa Ana Regional Water Board is responsible for implementing MS4 permits in Region 8. (RWQCB 2010).

Riverside County Water Quality Management Plan

The MS4 Permit and Drainage Area Management Plan require new development and significant redevelopment projects to prepare Water Quality Management Plans (WQMPs) for managing the quality of storm water or urban runoff that flows from a Project Site after construction is completed and after the facilities or structures are occupied or operational. A WQMP is required to reduce or eliminate water pollution in urban runoff that flows from storm water drainage systems into receiving waters. A WQMP must describe the site design, source control, and treatment control BMPs that would be implemented and maintained throughout the life of a project. The WQMP must include a statement that the project would implement appropriately sized treatment control BMPs targeted to address the pollutants of concern and to achieve the required level of treatment either singly or in combination with other measures. On October 22, 2012, the Executive Officer of the Santa Ana Regional Water Board approved the Water Quality Management Plan Guidance and Template for the Santa Ana Region of Riverside County; the guidance was updated in June 2016. The Riverside County WQMP addresses post-construction urban runoff from new development and redevelopment projects in the Santa Ana River Watershed. It requires that Low Impact Development retention BMPs (e.g., infiltration, harvest and use, evapotranspiration, and bio-treatment) be used unless it can be shown that these BMPs are infeasible.

National Pollutant Discharge Elimination System Construction General Permit

Pursuant to Section 402(p) of the Clean Water Act, which requires regulations for permitting of certain storm water discharges, the State Water Board has issued a Statewide general NPDES permit for storm water discharges from construction sites ([NPDES No. CAS000002] Water Quality Order 2009-0009-DWQ amended by 2010-0014-DWQ and 2012-0006-DWQ, State Water Board NPDES General Permit for Stormwater Discharges Associated with Construction Activity [adopted by the State Water Board on September 2, 2009]), herein referred to as the “Construction General Permit.” Order No. 2009-0009-DWQ was adopted by the State Water Board on September 2, 2009, and became effective on July 1, 2010. This order was amended by Order No. 2010-0014-DWQ, which became effective on February 14, 2011. Order No. 2012-0006-DWQ, which amended Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ, became effective on July 17, 2012.

Under this Construction General Permit, storm water discharges from construction sites with a disturbed area of one acre or more are required to either obtain individual NPDES permits for storm water discharges or to be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by determining the risk level of the construction site and by preparing a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer that includes a site evaluation and assessment, BMPs to be implemented at the construction site, and an inspection program. The SWPPP should also outline the monitoring and sampling program to verify compliance with discharge Numeric Action Levels according to the risk level for the site, as set by the Construction General Permit. The primary objective of the SWPPP is to ensure that the responsible party properly construct, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site. Permit Registration Documents (SWPPP, Notice of Intent, and other documents), as well as annual reports, Notice of Terminations, and Numeric Action Level exceedance reports, must be electronically submitted to the State Water Board and the permit fee mailed to the State Water Board for Construction General Permit coverage.

Sustainable Groundwater Management Act

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under the SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. The Department of Water Resources (DWR) categorizes the priority of groundwater basins. For critically over-drafted basins, that would be 2040. For the remaining high and medium-priority basins, 2042 is the deadline. The SGMA also requires local public agencies and Groundwater Sustainability Agencies in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed road maps for how groundwater basins will reach long-term sustainability. The Project Site is located within the West San Jacinto Groundwater Basin (DWR Basin No. 8-5), which is not adjudicated and has been categorized as a “high-priority” basin by the DWR.

Pursuant to the SGMA, management of the West San Jacinto Groundwater Basin is overseen by the recently formed West San Jacinto Groundwater Sustainability Agency, which is led by the Eastern Municipal Water District (EMWD) Board of Directors. The GSP prepared for the West San Jacinto Groundwater Basin (adopted by the EMWD Board of Directors on September 15, 2021), is currently under review by the DWR. The purpose of the GSP is to ensure ongoing, long-term, sustainable management of groundwater resources within the West San Jacinto Groundwater Sustainability Agency Groundwater Sustainability Plan Area by 2042.

Local

Applicable City of Perris General Plan Goals and Policies

The Conservation and Safety Elements of the City General Plan are related to hydrology (including flooding) and water quality:

- **Conservation Element Goal VI – Water Quality.** Achieve regional water quality objectives and protect the beneficial uses of the region’s surface and groundwater.
 - **Policy VI.A.** Comply with requirements of the National Pollutant Discharge Elimination System (NPDES).
- **Conservation Element Goal VIII – Sustainable Future.** Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.
 - **Policy VIII.A.** Adopt and maintain development regulations that encourage water and resource conservation.
- **Safety Element Goal I.** Reduced risk of damage to property or loss of life due to natural or man-made disasters
 - **Policy I.B: Flooding.** The City of Perris shall restrict future development in areas of high flood hazard until it can be shown that risk is or can be mitigated.

Perris Municipal Code

The City of Perris has adopted Chapter 14.22 of the Perris Municipal Code (Storm Water/Urban Runoff Management and Discharge Control), which includes the requirement for preparation and adoption of a project-specific WQMP. A project-specific WQMP identifies BMPs to ensure that water quality of receiving waters is not degraded following development. New projects submitted to the City are required to submit a project-specific WQMP prior to the first discretionary project approval or permit. Project applicants may submit a preliminary project-specific WQMP for discretionary project approval (land use permit); however, a final version must be submitted for review and approval prior to the issuance of any grading or building permits. It should be noted that a preliminary WQMP has been prepared for the Proposed Project and submitted to the City and this preliminary Project-specific WQMP is being used for this analysis.

4.9.1.2 Existing Conditions

Description of the Watershed

The Project Site straddles Perris Valley Airport, which separates existing flows. Existing elevations across the western portion of the site vary from 1425.5 to 1415.1 (NAVD88 datum). This western area currently slopes down at approximately 0.5 percent grade to the southeast. Existing elevations across the eastern portion of the site vary from 1418.5 to 1413.5 (NAVD88

datum). This eastern area currently slopes down at approximately 0.3 percent grade to the southeast. The existing drainage pattern for the site and the general area is characterized by sheet flows that follow the slope.

The western portion of the Project Site is bound to the west by existing improvements along Goetz Road, to the north by Ellis Ave, to the east by Perris Valley Airport, to the south by largely vacant land. The improvements in Goetz Road protect the Project Site from off-site flows with existing storm drain and water quality improvements within the street right-of-way. Ellis Avenue requires improvements to widen to the ultimate width, which will include expanding and revising the existing storm drain facilities. The on-site surface flows travel via sheet flow across the Project Site, ultimately draining into a storm drain inlet within the Perris Valley Airport property. For purposes of the Preliminary Drainage Studies analyses, it is assumed that the existing storm drain inlet drains south to the San Jacinto River.

The eastern portion of the Project Site is bound to the west by Perris Valley Airport, to the north by Ellis Ave, to the east by Case Road, and to the south by vacant land. As previously described, Ellis Ave requires improvements to widen to the ultimate width, which will include expanding and revising the existing storm drain facilities. The existing storm drain channel in Ellis Ave conveys off-site flows around the Project Site to an existing ditch in Case Road. This ditch ultimately outlets into the San Jacinto River, south of the Project Site. This ditch also accepts on-site surface flows, which travel via sheet flow across the Project Site.

Watershed-Based Plan Conditions

Section 303(d) of the Clean Water Act authorizes the EPA to assist states, territories, and authorized Tribes with listing impaired waters and developing total maximum daily loads (TMDL) for these water bodies. A TMDL establishes the maximum amount of a pollutant allowed in a water body and serves as the starting point or planning tool for restoring water quality. Clean Water Act Section 303(d)-listed impairments, TMDLs, designated beneficial uses, and proximity to Rare, Threatened, or Endangered Species (RARE) beneficial for the Proposed Project's receiving waters in order of upstream to downstream, are summarized in Table 4.9-1, Identification of Receiving Waters.

Table 4.9-1. Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
San Jacinto River (Reach 3) (HU#802.11)	None	Intermittently: AGR, GWR, REC1, REC2, WARM, WILD	Not a water body classified as RARE
San Jacinto River (Reach 2) (HU#802.11)	None	AGR, GWR, WILD, MUN, REC1, REC2, WARM	Not a water body classified as RARE
Canyon Lake (Railroad Canyon Reservoir) (HU#802.11, 802.12)	Nutrients, Pathogens	WILD, REC2, WARM, GWR, MUN, REC1, AGR	Not a water body classified as RARE
San Jacinto River (Reach 1) (HU#802.32)	None	Intermittently: AGR, GWR, MUN, REC1, REC2, WARM, WILD	Not a water body classified as RARE
Lake Elsinore (HU#802.31)	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs (Polychlorinated biphenyls), Sediment Toxicity, Unknown Toxicity	REC1, REC2, WARM, WILD	Not a water body classified as RARE

Notes: AGR = Agricultural Supply; COMM = Commercial and Sport Fishing; GWR = Ground Water Recharge; MUN = Municipal and Domestic Supply; RARE = Rare, Threatened, or Endangered Species; REC1 = Contact Water Recreation; REC2= Non-contact Water Recreation; WARM = Warm Freshwater Habitat; WILD = Wildlife Habitat

Flood Hazard Zone

The Project Site is located within the Mead Valley Area Plan and is also within the Santa Ana watershed, San Jacinto subwatershed area. The Project Site is within the San Jacinto River floodplain. The most recent floodplain analysis was conducted as part of the Conditional Letter of Map Revision for Tract 36988 – Green Valley. The FEMA Map No. 06065C1440H was revised to reflect the Letter of Map Revision on January 3, 2019. The study shows that a portion of the Project Site will still be within the Zone AE designation. Zone AE is an area of base floodplain or 1 percent annual chance of flood.

4.9.2 Thresholds of Significance

According to Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), the Proposed Project would have a significant impact on hydrology and water quality if it would:

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

- **Threshold HYD-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:
 - Result in substantial erosion or siltation on- or off-site.
 - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
 - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
 - Impede or redirect flood flows.
- **Threshold HYD-4:** In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- **Threshold HYD-5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The Initial Study (Appendix A to this Draft Environmental Impact Report [EIR]) determined that Threshold HYD-4 would have a less than significant impact, therefore, this environmental topic will not be addressed further in this section of the Draft EIR.

4.9.3 Regulatory Implementation

Adherence to NPDES requirements is required of all development within the City and would reduce Project-related impacts related to water quality. BMPs have been incorporated into the Proposed Project in compliance with these standard regulatory requirements. Regulatory Implementation measures RI HYD-1 through HYD-4 would be incorporated into the Proposed Project's Conditions of Approval to track the implementation of these standard requirements.

RI HYD-1 Prior to grading plan approval and the issuance of a grading permit, the Project Proponent/Developer shall provide evidence to the City that a Notice of Intent (NOI) has been filed with the Regional Water Quality Control Board for coverage under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities.

RI HYD-2 Prior to grading plan approval and the first issuance of a grading permit by the City, the Project Proponent/Developer shall submit to the City of Perris a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall include a surface water control plan and erosion-control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. Additionally, the SWPPP shall identify structural and non-structural Best Management Practices

(BMPs) to control sediment and nonvisible discharges from the site. BMPs to be implemented in the SWPPP may include (but shall not be limited to) the following:

- Sediment discharges from the site may be controlled by the following: sandbags; silt fences; straw wattles and temporary debris basins (if deemed necessary); and other discharge control devices. The construction and condition of the BMPs will be periodically inspected during construction, and repairs will be made when necessary as required by the SWPPP.
- No materials of any kind shall be placed in drainage ways.
- Materials that could contribute nonvisible pollutants to storm water must be contained, elevated, and placed in temporary storage containment areas.
- All loose piles of soil, silt, clay, sand, debris, and other earthen material shall be protected per Santa Ana Regional Water Board standards to eliminate any discharge from the site. Stockpiles will be surrounded by silt fences.
- The SWPPP will include inspection forms for routine monitoring of the site during the construction phase to ensure NPDES compliance.
- Additional BMPs and erosion-control measures will be documented in the SWPPP and used if necessary.
- The SWPPP will be kept on site for the entire duration of project construction and will also be available to the Santa Ana Regional Water Board for inspection at any time.

In the event that it is not feasible to implement the above BMPs, the City of Perris can make a determination that other BMPs will provide equivalent or superior treatment either on or off site.

RI HYD-3 Prior to issuance of grading permits, the Project Proponent/Developer shall provide evidence to the City that the following provisions have been added to construction contracts for the Project:

- The Construction Contractor shall be responsible for performing and documenting the application of BMPs identified in the SWPPP. Weekly inspections shall be performed on sediment-control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and submitted to the City for inspection. In addition, the Contractor will also be required to maintain an inspection log and have the log on site to be reviewed by the City of Perris and the representatives of the Regional Water Quality Control Board.

RI HYD-4 Prior to grading plan approval and issuance of a grading permit by the City, the Project Proponent/Developer shall receive approval from the City of Perris for a Final Water Quality Management Plan (Final WQMP). The Final WQMP shall

specifically identify pollution prevention, site design, source control, and treatment control BMPs that shall be used on site to control predictable pollutant runoff to reduce impacts to water quality to the maximum extent practicable. Source control BMPs to be implemented in the Final WQMP may include (but shall not be limited to) those listed in Table G.1, Permanent and Operational Source Control Measures, of the Preliminary WQMPs included in Appendix H of the Draft EIR (Albert A. Webb & Associates 2023). Treatment control BMPs shall include on-site detention/sand filtration basins to treat the site's runoff; these facilities shall be maintained and inspected at least twice per year and prior to October 1. Additional BMPs will be documented in the WQMP and used if necessary. In the event that it is not feasible to implement the BMPs identified in the Final WQMP, the City of Perris can make a determination that other BMPs shall provide equivalent or superior treatment either on or off-site.

4.9.4 Environmental Impacts

The following sections address various potential impacts relating to hydrology and water quality that could result from implementation of the Proposed Project.

4.9.4.1 Threshold HYD-1: Water Quality Standards

Impact Analysis

Construction

Construction of the Proposed Project would require grading and excavation of soils, which would loosen sediment and then have the potential to mix with surface water runoff and degrade water quality. Additionally, construction would require the use of heavy equipment and construction-related chemicals, such as concrete, cement, asphalt, fuels, oils, antifreeze, transmission fluid, grease, solvents, and paints. These potentially harmful materials could be accidentally spilled or improperly disposed of during construction and, if mixed with surface water runoff, could wash into and pollute receiving waters.

These types of water quality impacts during construction of the Proposed Project would be prevented through implementation of the current State General Permit to Discharge Stormwater Associated with Construction Activities, which requires preparation of a SWPPP by a Qualified SWPPP Developer. The SWPPP is required prior to the issuance of construction permits for the Proposed Project. The Erosion and Sediment Control Plan would include construction BMPs such as the following:

- Silt fence, fiber roll, or gravel bag
- Street sweeping and vacuuming
- Storm drain inlet protection
- Stabilized construction entrance/exit

- Vehicle and equipment maintenance, cleaning, and fueling
- Hydroseeding
- Stockpile management
- Material delivery and storage
- Solid waste management
- Silt prevention and control
- Concrete waste management

Furthermore, Section 14.22.100 (Stormwater conveyance system protection) of the Perris Municipal Code regulates grading and construction activities as they relate to stormwater pollution. Any person engaged in development, grading, or construction within the City are required to comply with all applicable local ordinances, including the grading and erosion control section in Title 15 of the Perris Municipal Code, the standard specifications for public works construction when performing public works, and applicable provisions of the NPDES General Construction Permit for stormwater discharges associated with construction activity issued by the State Water Board and Santa Ana Regional Water Board, NPDES No. CAS 618033, Order No. R8-2002-0011.

The required compliance with existing regulatory requirements (regulatory Implementation measures RI HYD-1 through RI HYD-3) would ensure that Proposed Project does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, potential water quality impacts would be less than significant.

Operation

Under existing conditions, the entire Project Site is disturbed and undeveloped. In the post-development condition, the Project Site would consist of hardscape areas such as roof, asphalt, concrete, ornamental landscape areas, and covered trash enclosures.

Potential water pollutants that could be generated at the Project Site in its post-development condition include the following (per the California Stormwater Quality Association Redevelopment Handbook):

- Bacterial Indicators
- Nutrients (landscaping)
- Heavy metals (parking lots and loading docks)
- Toxic Organic Compounds
- Trash and Debris (waste containers and parking lots)
- Pesticides (parking lots and loading docks)
- Sediments (landscaping)
- Oil and Grease (parking lots and loading docks)
- Oxygen Demanding Substances (parking lots and loading docks)

According to the Preliminary WQMPs for the Proposed Project (Appendix H to the Draft EIR), the potential pollutants of concern for the receiving waters tributary to the Project Site include bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and

debris, and oil and grease. These pollutants may lead to the degradation of storm water quality in downstream water bodies. However, the Proposed Project would include treatment control BMPs to treat potential pollutants in runoff. As stated in the Preliminary WQMP, the Proposed Project includes Low Impact Development bioretention BMP, modular wetland system (flow-based), and a combination of corrugated metal pipe detention pipes (storage) and modular wetland system (volume-based). Once treated, runoff from the proposed permanent storm water BMPs will outlet into existing improvements in Goetz Road and Ellis Avenue. Treatment control BMPs are required to have a removal efficiency of a medium or high effectiveness as quantified below:

- **High.** Equal to or greater than 80 percent removal efficiency.
- **Medium.** Between 40 percent and 80 percent removal efficiency.

The selected treatment control BMPs for the Proposed Project is a modular wetland system, which would reduce impacts from the following pollutants of concern:

- Metals, Nutrients, Pesticides, and Toxic Organic Compounds at medium efficiency percentage; and
- Sediments, Trash and Debris, and Oil and Grease at high efficiency percentage.

Additionally, the Proposed Project would provide source control BMPs. Source control BMPs include permanent, structural features that may be required in Project plans—such as roofs over and berms around trash and recycling areas—and Operational BMPs, such as regular sweeping and “housekeeping,” that must be implemented by the site’s occupant or user. Table G.1, Permanent and Operational Source Control Measures, of the Preliminary WQMP (Appendix H) lists permanent and operational source control BMPs that have been incorporated into the Proposed Project, as identified in the Preliminary WQMPs.

By complying with the NPDES permit and WQMP requirements (regulatory Implementation measure RI HYD-4), the Proposed Project would not provide substantial additional sources of polluted runoff to receiving waters. Potential long-term water quality impacts would therefore be less than significant.

Significance of Impact

Less Than Significant Impact.

4.9.4.2 Threshold HYD-2: Groundwater Supplies

Impact Analysis

According to the EMWD’s Urban Water Management Plan, the EMWD has four main sources of water supply: purchased or imported water purchased from the Metropolitan Water District of Southern California, pumped local potable groundwater (not desalinated), local desalinated groundwater, and recycled water (EMWD 2021). The local groundwater (not desalinated) is

projected to provide approximately 10 to 13 percent of the total water supplies between 2025 and 2045.

The Project Proponent/Developer does not propose the use of any wells or other groundwater extraction activities. Therefore, the Proposed Project would not directly draw water from the groundwater table. Accordingly, implementation of the Proposed Project has no potential to substantially deplete or decrease groundwater supplies and the Proposed Project's potential impact to groundwater supplies would be less than significant.

The Project Site is not located within a groundwater recharge area. The Project Site is in the EMWD Perris North groundwater basin in the West San Jacinto Groundwater Management Area (EMWD 2021). The West San Jacinto Groundwater Management Area covers approximately 256 square miles (over 164,200 acres) and has been divided into six groundwater management zones. Considering that the Project Site is relatively small (87.69 gross acres) in relation to the total size of the groundwater basin, increased impervious surface areas of approximately 88 acres would have negligible impact on opportunity to recharge under the existing conditions. Furthermore, as discussed in Section 4.15, Utilities and Service Systems, of this Draft EIR, the EMWD has adequate water supply to meet the Proposed Project's projected water demand. Therefore, the Proposed Project would not substantially decrease groundwater supplies or interfere with groundwater recharge such that it impedes sustainable groundwater management of the basin. Potential impacts would be less than significant.

Significance of Impact

Less Than Significant Impact.

4.9.4.3 Threshold HYD-3: Site Drainage and Hydrology (Erosion and Siltation; Stormwater Runoff; Stormwater Drainage System Capacity and Polluted Runoff; and Flood Flows)

Impact Analysis

Development of the Proposed Project would result in increased storm water flows on the Project Site. However, with implementation of the site-specific WQMPs and the construction of on- and off-site storm drain facilities, impacts to the natural drainage pattern would not result in on- or off-site flooding, substantial erosion or siltation, exceed the capacity of existing or proposed stormwater drainage systems, and would not impede or redirect flood flows.

Erosion and Siltation

Grading activities during construction of the Proposed Project may result in wind driven soil erosion and loss of topsoil. All construction and grading activities would comply with Chapter 14.22 (Stormwater/Urban Runoff Management and Discharge Control) of the Perris Municipal

Code and the NPDES General Construction Permit as discussed in Threshold HYD-1. The required compliance with existing regulatory requirements (regulatory Implementation measures RI HYD-1 through RI HYD-3) would ensure that the Proposed Project does not result in substantial erosion or siltation impact during construction.

Upon completion, the Project Site would be developed with concrete tilt up warehouse buildings, trailer parking and associated hardscapes and landscaping that would prevent substantial erosion or siltation from occurring. Therefore, potential impacts associated with erosion would be less than significant.

Flood Flows

Site 1

In the proposed condition, off-site flows are captured and conveyed within street rights-of-way. The Project Site is only impacted by on-site stormwater flows. The graded elevation of the site was set with regards to the floodplain elevations. No portion of the Proposed Project buildings would be lower than the 1420.1 regulatory elevation. Additionally, the top of grates elevations are set at 1418.6 feet minimum, which allows for 1.5 feet of ponding to the 1420.1 regulatory elevation, within the truck parking areas.

On-site flows generated by the Proposed Project would be collected and conveyed using a combination of surface flows, curb and gutter, ribbon gutter, and storm drain lines to the proposed on-site bioretention basin. Site 1 consists of two proposed industrial buildings along with all associated utilities, drive aisles, parking stalls, walkways, and landscape areas. Site 1 would be treated for water quality with a combination of a proposed modular wetland system treatment device and a proposed bioretention basin. The bioretention basin would use a 3.0-foot section of media (1.5 feet of amended soil media, 0.5 foot of choker gravel, and 1.0 foot of gravel) to filter the runoff for water quality treatment. Low flows infiltrate down through the 3.0-foot section of designed media and into the perforated underdrain pipes within the gravel layer, which directly discharge into the proposed outlet structure. The top of grate would be positioned at a higher elevation to hold the existing 2-year, 24-hour storm event to address hydromodification. The outlet structure would require a pump to raise storm flows up to existing elevations, to outlet western site flows to the existing Perris Valley Airport storm drain inlet.

Site 2

In the proposed condition, off-site flows are captured and conveyed within street rights-of-way. The Project Site is only impacted by on-site stormwater flows. The graded elevation of the site was set with regards to the floodplain elevations. The top of grates elevations are set at 1418.6 feet minimum, which allows for 1.5 feet of ponding to the 1420.1 regulatory elevation, within the truck parking areas.

On-site flows generated by the Proposed Project would be collected and conveyed using a combination of surface flows, curb and gutter, ribbon gutter, and storm drain lines to the proposed on-site bioretention basin. Site 2 consists of drive aisles, parking stalls, and landscape areas. All of Site 2 would be treated for water quality with a proposed bioretention basin. The bioretention basin would use a 3.0-foot section of media (1.5 feet of amended soil media, 0.5 foot of choker gravel, and 1.0 foot of gravel) to filter the runoff for water quality treatment. Low flows infiltrate down through the 3.0-foot section of designed media and into the perforated underdrain pipes within the gravel layer, which directly discharge into the proposed outlet structure. The top of grate would be positioned at a higher elevation to hold the existing 2-year, 24-hour storm event to address hydromodification. The outlet structure will require a pump to raise storm flows up to existing elevations, to outlet eastern site flows to the Case Road storm drain channel proposed with the off-site improvements for PM 35877 (P8-1106D, DPR 08-01-0007).

Based on the analyses and results of the Preliminary Drainage Studies (Appendix G), the following conclusions were derived from the hydrology and hydraulic results:

- The proposed drainage improvements would adequately convey flows to the basin and provide flood protection for the 100-year storm event.
- The proposed basin would provide adequate water quality treatment and mitigation for Hydraulic Conditions of Concern.
- The Proposed Project would not impact flooding condition to upstream or downstream properties.

Therefore, the Proposed Project would not impede or redirect flood flows, and potential impacts would be less than significant.

Significance of Impact

Less Than Significant Impact.

Mitigation Measures

No mitigation measure required.

4.9.4.4 Threshold HYD-5: Conflict with Water Quality Control Plan or Sustainable Groundwater Management Plan

Impact Analysis

Surface Water Quality Control Plan. The City of Perris, including the Project Site, is within the Santa Ana River Basin, Region 8, in the Upper Santa Ana Watershed. The Water Quality Control Plan for the Santa Ana River Basin (8) was updated in 2019. The Santa Ana River Basin Plan establishes water quality standards for groundwater and surface water in the basin; that is, standards for both beneficial uses of specific water bodies and the water quality levels that must be maintained to protect

those uses. The Basin Plan includes an implementation plan describing actions by the Santa Ana Regional Water Board and others needed to achieve and maintain the water quality standards. The Santa Ana Regional Water Board regulates waste discharges to minimize and control their effects on the quality of the region's groundwater and surface waters. The Santa Ana Regional Water Board also regulates discharges from Riverside County's Phase I MS4s through the Riverside County MS4 Permit (Order No. R8-2010-0033 NPDES No. CAS618033, as amended by Order No. R8- 2013-0024) pursuant to Section 402(p) of the Clean Water Act.

As discussed under Threshold HYD-1, the Proposed Project would result in less than significant impacts related to regional surface water quality during construction and operation with the required implementation of regulatory implementation measures RI HYD-1 through RI HYD-4

Groundwater Management Plan. Groundwater below the Project Site and this portion of the Perris Valley is managed by the EMWD. The Project Site is within the Perris North Groundwater Management Zone of the West San Jacinto Groundwater Sub-basin, regulated by the Santa Ana Regional Water Board.

The Project Site is located within the West San Jacinto Groundwater Basin, which is categorized by the California DWR as a "high-priority" basin. Additionally, the basin is not adjudicated; therefore, the West San Jacinto Groundwater Basin is subject to the requirements of the SGMA (DWR, 2019b). The EMWD Board of Directors is the Groundwater Sustainability Agency for the West San Jacinto Groundwater Basin and is responsible for development and implementation of a GSP.

The Groundwater Sustainability Plan for the San Jacinto Groundwater Basin was adopted by the EMWD on September 15, 2021. The purpose of this GSP is to define the groundwater conditions that would be used to ensure ongoing, long-term, sustainable management of the groundwater resources within the Plan Area. The groundwater resources of the San Jacinto Groundwater Basin support domestic, agricultural, municipal and industrial, and environmental uses. 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 beneficial uses such as municipal and domestic supplies of fresh groundwater resources in the Lakeview and Perris North Groundwater Management Zones to the extent possible, by minimizing the northward and eastward migration of brackish groundwater from the Perris South Groundwater Management Zone.
- 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 Proposed Project would not conflict with the GSP. As discussed in Threshold HYD-2, the Proposed Project would be supplied primarily with imported, purchased water for potable water demands and recycled water for non-potable water demands, and the Project Site is not a substantial groundwater recharge area. The Proposed Project would not impact groundwater quality to adversely affect beneficial uses of groundwater supplies. Therefore, the Proposed Project would not conflict with or obstruct implementation of a sustainable groundwater management plan and potential impacts would be less than significant.

Significance of Impact

Less Than Significant Impact.

4.9.5 Cumulative Impacts

The following sections address various potential cumulative impacts relating to hydrology and water quality that could result from implementation of the Proposed Project.

4.9.5.1 Cumulative HYD-1: Water Quality Standards

Cumulative development within the Santa Ana River Watershed would result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff. Increased impervious surface areas are likely to alter hydrology and increase potential pollutant loads. However, as with the Proposed Project, all development and future development in the City and throughout the watershed must obtain coverage under and comply with requirements of the NPDES permit program to ensure that changes in hydrology and potential pollutant loads do not exceed standards set forth by the County. Although continued growth is anticipated to occur in the City and surrounding areas, new development and significant redevelopment would have to minimize their individual impacts to water quality and pollutant transport through implementation of construction and post-construction BMPs. Development throughout the City would be regulated through the County's WQMP requirements and the NPDES permit requirements. All cumulative development would be required to mitigate its own specific impact on water quality and drainage. Therefore, potential cumulative impacts related to water quality would be less than significant.

4.9.5.2 Cumulative Threshold HYD-2: Groundwater Supplies

The Proposed Project is consistent with the City's General Plan Land Use Designation for the Project Site. The natural recharge for the San Jacinto Groundwater Basin is primarily from percolation of water in the San Jacinto River and its tributaries with less recharge from rainfall on the valley floor, primary recharge area being the upper reaches of the San Jacinto River. Therefore, the Proposed Project, along with cumulative projects within the San Jacinto Watershed, would not significantly impact groundwater recharge activities due to increased impervious surfaces. Furthermore, the EMWD's Urban Water Management Plan already accounts for the development of the Project Site as light industrial uses; therefore, the Proposed Project would not result in

additional water-related cumulative impacts within the EMWD service area. The potential cumulative impacts related to groundwater supplies would, accordingly, be less than significant.

4.9.5.3 Cumulative Threshold HYD-3: Site Drainage and Hydrology

Storm water flow conveyance and flood potential would increase as development results in greater amounts of impervious surfaces and channelization for conveyance of peak flows. However, as with the Proposed Project, other cumulative projects in the City are also required to comply with the Riverside County Flood Control & Water Conservation District and the Perris Valley Master Drainage Plan that guide and govern local and regional hydrology and hydraulic modifications. The capacities of planned drainage facilities have been determined assuming a full buildout scenario. All development in the County of Riverside and the San Jacinto Watershed (including the City of Perris) would be required to comply with the requirements of the applicable NPDES permit, the Riverside County Flood Control & Water Conservation District Drainage Area Management Plan, the Perris Valley Master Drainage Plan and Area Drainage Plan, and other pertinent local drainage and conveyance ordinances. The Proposed Project and other cumulative projects must include appropriate BMPs and on-site drainage system to reduce flow volumes exiting the site to meet the applicable standards. Accordingly, the Project-related contribution to impacts associated with storm water flow conveyance would not be cumulatively considerable.

Potential impacts to existing drainage patterns on the Project Site resulting in erosion or siltation would increase from development of the Project Site and throughout the City. However, these impacts would be minimized through compliance with existing regulations. Therefore, no cumulative impacts are anticipated.

Future development within the City, including the Proposed Project, could place structures within the 100-year flood hazard area. However, as with the Proposed Project, these projects would be designed so that building finished floor elevations would be above the FEMA's base flood elevation, so that they do not impede or redirect flood flows. Therefore, potential Project impacts related to hydrology would be less than significant.

4.9.5.4 Cumulative Threshold HYD-5: Conflict with Water Quality Control Plan or Sustainable Groundwater Management Plan

As with the Proposed Project, cumulative projects within the Santa Ana River Basin are required to comply with applicable NPDES General Construction Permit requirements and long-term operational WQMP requirements to ensure that runoff from the Project Site does not contain substantial pollutants that could impair surface or groundwater quality. Therefore, the Proposed Project, individually, or cumulatively, does not have the potential to conflict with any water quality control plans or sustainable groundwater management plans. Cumulative impacts would be less than significant.

4.9.6 Level of Significance Before Mitigation

4.9.6.1 Threshold HYD-1: Water Quality Standards

The Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

4.9.6.2 Threshold HYD-2: Groundwater Supplies

The Proposed Project would not greatly decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

4.9.6.3 Threshold HYD-3: Groundwater Supplies

The Proposed Project would not 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: result in a substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.

4.9.6.4 Threshold HYD-5: Conflict with Water Quality Control Plan

The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.7 Mitigation Measures

No mitigation measures are required because there were no significant impacts identified under the applicable thresholds.

4.9.8 Level of Significance After Mitigation

Because no mitigation measures are required, potential impacts are the same as described in Section 4.9.6, Level of Significance Before Mitigation.

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