3.12 HYDROLOGY AND WATER QUALITY

3.12.1 INTRODUCTION

This discussion provides an evaluation of K Line Northern Extension (KNE) as it relates to hydrologic resources and water quality. It includes descriptions of the federal, state, and local regulatory setting, existing conditions, and the impacts from construction and operation of the proposed alignments and stations, design option, and maintenance and storage facility (MSF), as well as mitigation measures where applicable. For more detailed information, refer to the KNE Hydrology and Water Quality Technical Report (Appendix 3.12-A).

3.12.2 REGULATORY FRAMEWORK

3.12.2.1 FEDERAL

The following federal laws and regulations are relevant to construction and operation of the project:

- Clean Water Act (CWA) (United States Code [USC] Title 33, Section 1251 et seq.)
  - CWA Section 301 (Discharge of Pollutants into waters of the U.S.)
  - CWA Section 303 (Water Quality Impairments)
  - CWA Section 401 (Water Quality Certification)
  - CWA Section 402 (National Pollutant Discharge Elimination System [NPDES])1
  - CWA Section 404 (Permit for Discharge of Fill in Wetlands and Other Waters)
- Safe Drinking Water Act (42 USC Section 300[f] seq.)
- Rivers And Harbors Act of 1899 (33 USC 403 and 408)[2]
- Executive Order 11988: Floodplain Management
- National Flood Insurance Act (42 USC 4001 et seq.)

3.12.2.2 STATE

The State Water Resources Control Board (SWRCB) has nine Regional Water Quality Control Boards (RWQCBs) that exercise rulemaking and regulatory activities by basins throughout California. The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and it oversees water quality functions throughout the state by approving basin plans, total maximum daily loads (TMDLs), and NPDES permits. The RWQCBs are responsible for the development and implementation of water quality control plans, also known as basin plans.

[1] The State Water Resources Control Board issues both a Construction General NPDES Permit for protection of water quality from stormwater discharges during construction activities and an Industrial General NPDES Permit (IGP) for protection of water quality from stormwater discharges during industrial activities. Under construction and operation of this project, Metro would be responsible for compliance with both of these NPDES permits.

[2] Section 403 or 408 permitting is not expected for this project.

The following state laws and regulations are relevant to construction and operation of the project:

- Porter-Cologne Water Quality Act
- California Fish and Game Code Section 1602
- State Antidegradation Policy
- Alquist-Priolo Earthquake Fault Zoning Act
- Seismic Hazards Mapping Act
- Sustainable Groundwater Management Act[3]

In addition, the Construction General NPDES Permit and the Industrial General NPDES Permit described below include requirements that are relevant to design and implementation of the project.

3.12.2.2.1 CONSTRUCTION GENERAL NPDES PERMIT

The Construction General NPDES Permit Order No. 2022-0057-DWQ (adopted September 8, 2022, and effective September 1, 2023) regulates stormwater discharges from construction sites that result in a disturbed soil area of one acre or greater and/or are smaller sites that are part of a larger common plan of development. Operators of regulated construction sites are required to develop a Stormwater Pollution Prevention Plan (SWPPP); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General NPDES Permit.

3.12.2.2.2 INDUSTRIAL GENERAL NPDES PERMIT

The SWRCB implements the Industrial General NPDES Permit (IGP) Order 2014-0057-DWQ as amended in 2015 and 2018 (effective July 1, 2020) to minimize impacts on stormwater from industrial activities. The alignments and stations, design option, and MSF would be subject to the regulations of the IGP because they are transportation facilities, including vehicle maintenance shops and equipment cleaning operations at the MSF. The IGP requires preparation of an industrial SWPPP and a monitoring plan for industrial facilities, including vehicle maintenance facilities associated with transportation operations.

3.12.2.3 REGIONAL

3.12.2.3.1 LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

The Los Angeles Regional Water Quality Control Board (LARWQCB) has jurisdiction over stormwater and urban runoff discharges within the Los Angeles County Flood Control District (LACFCD). Applicable regional regulations are discussed below.

[3] The Sustainable Groundwater Management Act requires local agencies to form groundwater sustainability agencies for high- and medium-priority basins and for the agencies to develop and implement groundwater sustainability plans to avoid undesirable results and to mitigate overdraft within 20 years. The groundwater basins relevant to this analysis are very low-priority basins and do not have sustainable groundwater management plans (California Department of Water Resources [DWR] 2004a, b, c).

3.12.2.3.1.1 LOS ANGELES COUNTY MS4 PERMIT

LARWQCB Order No. R4-2012-0175, as amended by SWRCB Order No. WQ 2015-0075, LARWQCB Order No. R4-2012-0175-A01, NPDES Permit No. CAS004001, and Los Angeles County Municipal Separate Storm Sewer System (MS4) NPDES permit, regulates the LACFCD, Los Angeles County, and cities within the LACFCD for discharges of stormwater and urban runoff from MS4s, also called storm drainage systems. The Los Angeles County MS4 NPDES permit requires new development and redevelopment projects to have post-construction controls to manage pollutants, pollutant loads, and runoff volume emanating from the project site. New development and redevelopment projects are also required to implement hydrologic control measures.

3.12.2.3.1.2 CONSTRUCTION DEWATERING

The following NPDES permits regulate construction dewatering:

- LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004) Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Construction Dewatering Permit)
- LARWQCB Order No. 93-010, Waste Discharge Requirements for Specified Discharges to Groundwater in the Santa Clara River and Los Angeles River Basins

3.12.2.3.1.3 DISCHARGE OF NON-HAZARDOUS CONTAMINATED SOILS AND OTHER WASTES

LARWQCB Order No. 91-93, Waste Discharge Requirements for Discharge of Non-Hazardous Contaminated Soils and Other Wastes in Los Angeles River and Santa Clara River Basins, protects waters of the state from contamination due to disposal of soils containing moderate concentrations of petroleum hydrocarbons, heavy metals, and other wastes.

3.12.2.3.1.4 LOS ANGELES BASIN PLAN

The Water Quality Control Plan: Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (LARWQCB 2019), referred to herein as the Los Angeles Basin Plan, sets the regulatory water quality standards for surface waters and groundwater within the region.

3.12.2.3.1.5 TOTAL MAXIMUM DAILY LOADS

In accordance with the federal CWA and the state Porter-Cologne Water Quality Control Act, TMDLs have been developed and incorporated into the Los Angeles Basin Plan for some pollutants identified on the 303(d) list as causing contamination.

3.12.2.3.1.6 WATERSHED MANAGEMENT AND ENHANCED WATERSHED MANAGEMENT PROGRAMS

The goal of Watershed Management Programs and Enhanced Watershed Management Programs is to ensure that "discharges from the Los Angeles County MS4: (i) achieve applicable water quality-based effluent limitations that implement TMDLs; (ii) do not cause or contribute to exceedances of receiving water limitations; and (iii) for non-stormwater discharges from the MS4, are not sources of pollutants to

receiving waters." There are Enhanced Watershed Management Programs for the Ballona Creek and Dominguez Channel Watersheds.

3.12.2.4 LOCAL

The following Metro policies and standards are applicable to water use and project design:

- Water Use and Conservation Policy
- Metro Rail Design Criteria (MRDC)

Los Angeles County and the Cities of Los Angeles and West Hollywood have codes, ordinances, and general plans that regulate hydrology and water resources, water quality and stormwater management, and floodplain protection.

3.12.3 METHODOLOGY

3.12.3.1 CEQA METHODOLOGY

The purpose of this analysis is to evaluate the project against California Environmental Quality Act (CEQA) thresholds of significance as the basis for determining the level of impacts related to hydrologic resources and water quality.

3.12.3.2 SIGNIFICANCE THRESHOLDS

In accordance with Appendix G of the 2022 CEQA Guidelines, the project would have a significant impact related to hydrologic resources and water quality if it would:

- Impact HWQ-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Impact HWQ-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Impact HWQ-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 matter which would:
  i. result in substantial erosion or siltation on or off site;
  ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
  iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  iv. impede or redirect flood flows.
- Impact HWQ-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

- Impact HWQ-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.12.4 RESOURCE STUDY AREA

The resource study area (RSA) for the hydrologic resources and water quality analysis is delineated as a 300-foot radius around the alignments and stations, the design option, and the MSF.

3.12.5 EXISTING SETTING

This existing setting discussion summarizes current conditions related to hydrologic resources and water quality within and surrounding the KNE RSA.

3.12.5.1 REGIONAL SETTING

The RSA is an urban area located within the coastal plain of Los Angeles County, which is generally flat with mild slopes draining south to southwest toward the Pacific Ocean. The coastal plain is an alluvial lowland area bounded to the north by the Santa Monica Mountains and the Elysian, Repetto, and Puente Hills and bounded on the east and southeast by the Santa Ana Mountains and the San Joaquin Hills. The RSA spans two surface watersheds: the Ballona Creek Watershed and the Dominguez Channel Watershed. The alignment RSA also spans two groundwater basins: the Central Coastal Plain of Los Angeles and the Hollywood Coastal Plain of Los Angeles. The MSF is in the West Coast Basin.

The climate is generally Mediterranean and characterized by hot and dry summers, while winters are generally temperate and semi-moist. Overall, the RSA's climate is relatively mild, with summertime high temperatures averaging about 90 degrees Fahrenheit and wintertime lows in the 40s. Annual precipitation averages from 13 to 15 inches. Almost all rainfall occurs between October and early May. Precipitation in neighboring mountain areas is substantially higher, reaching 22 inches per year and higher.

LARWQCB exercises regulatory water quality authority over the entire RSA. Additional authorities with jurisdiction include LACFCD, City of Los Angeles, City of Beverly Hills, City of West Hollywood, Metro and Caltrans District 7. Although portions of Ballona Creek downstream of the RSA are maintained by U.S. Army Corps of Engineers, it regulates no open channels within the RSA.

3.12.5.1.1 WATERSHEDS AND SURFACE WATER BODIES

All alignments and the design option are located in the Santa Monica Bay Watershed Management Area and in the Ballona Creek Watershed. The Ballona Creek Watershed is bounded by the Santa Monica Mountains on the north, the Harbor Freeway (Interstate 110) on the east, Baldwin Hills on the south, and Santa Monica Bay on the west (Figure 3.12-1). In total, the Ballona Creek Watershed is 128 square miles and includes the Cities of Beverly Hills and West Hollywood, and portions of the Cities of Los Angeles, Inglewood, Culver City, and Santa Monica, as well as unincorporated areas of Los Angeles County (Los Angeles Bureau of Engineering n.d.).

FIGURE 3.12-1. HYDROLOGY AND SURFACE WATER BODIES

Source: Los Angeles Bureau of Engineering n.d.; Connect Los Angeles Partners 2024

Within the RSA, the urban watershed generally drains to Ballona Creek through a network of storm drains. The full length of Ballona Creek is divided into segments for monitoring and reporting purposes and these segments are called reaches. The northern limit of Reach 1 is the upstream end of Ballona Creek near Pickford Street, and the southern limit is bound by the Southern Pacific Railroad near Jefferson Boulevard and National Boulevard. The most upstream point of Ballona Creek Reach 1 is located 0.8 mile southwest of Midtown Crossing Station. LACFCD owns and operates drainage infrastructure within incorporated and unincorporated areas in the watershed. Surface runoff is captured via drainage infrastructure, including catch basins, inlets, and MS4s (herein referred to collectively as storm drains). The existing storm drains beneath the proposed Crenshaw/Adams Station drain to an unnamed concrete-channel tributary of Ballona Creek (LACFCD Project No. 53 Jefferson Blvd SD System, Adams Blvd Drain per LACFCD As-Built Drawing No. 634-D8.10). All other storm drain systems of the RSA also drain to Ballona Creek.

The entirety of the MSF site is located in the Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area in the Dominguez Channel Watershed. The Dominguez Channel Watershed is bounded by Manchester Boulevard to the north and the Los Angeles and Long Beach Harbors to the south. The western areas include portions of the Cities of El Segundo, Manhattan Beach, Redondo Beach, Torrance, and the Palos Verdes Hills. Portions of the unincorporated communities of Willowbrook, West Rancho Dominguez, and Carson are located in the eastern portion of the watershed. Surface runoff from the entirety of the proposed MSF site is routed to Dominguez Channel by existing storm drains. The most upstream point of the Dominguez Channel is 1.4 miles south and 2.4 miles east of the proposed MSF.

3.12.5.1.2 DRAINAGE

The highly developed, urban RSA drains via a series of storm drains of varying size (Figure 3.12-2). Storm drains are used to convey runoff in locations where streets or other drainage facilities exceed their designated capacity or are otherwise unable to drain. The KNE Draft Preliminary Drainage Report (Metro 2023) provides details about existing storm drain systems.

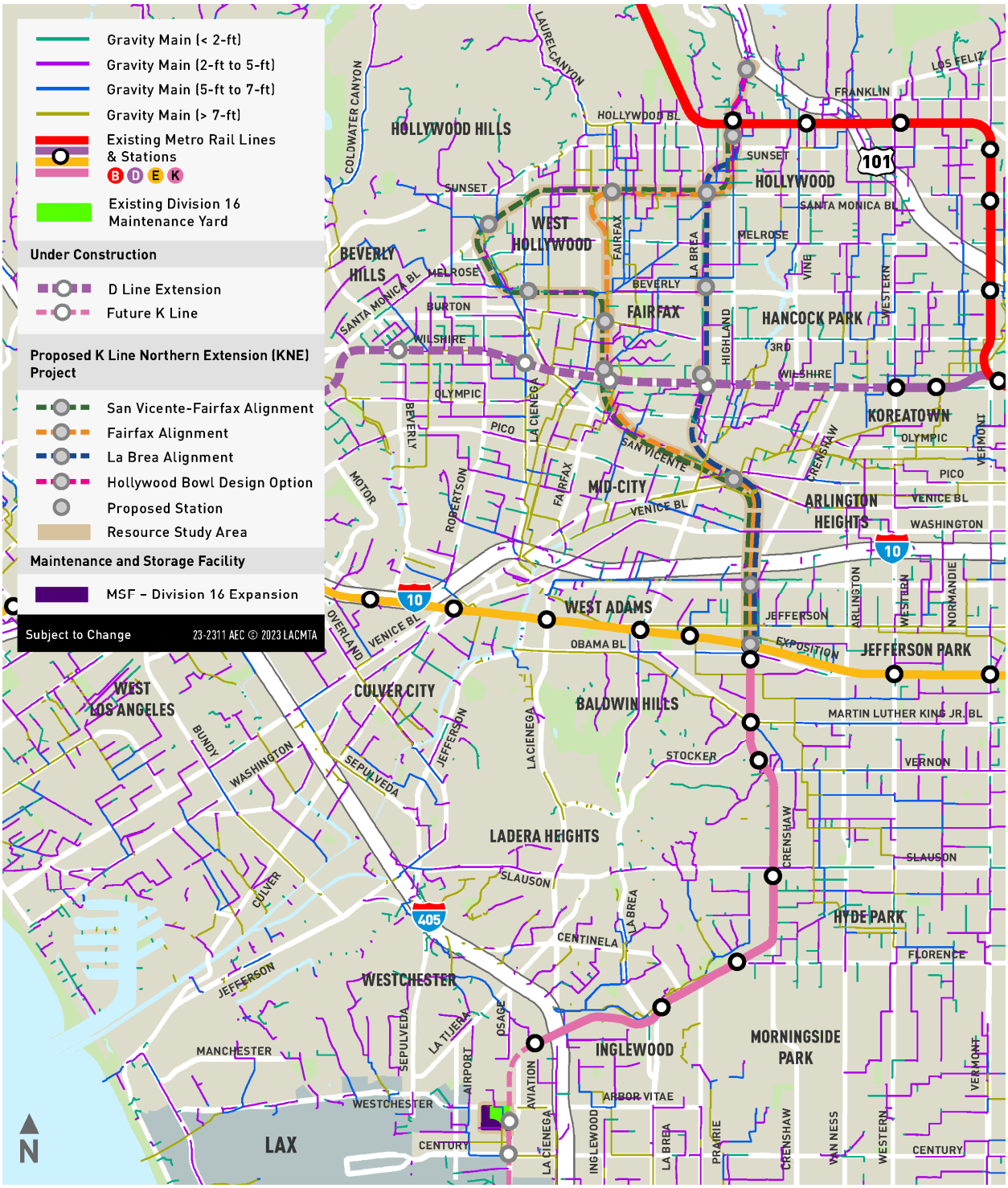
3.12.5.1.3 SURFACE WATER QUALITY

The existing storm drains in the RSA (Figure 3.12-2) ultimately discharge to Reach 1 of Ballona Creek (see Figure 3.12-1 for location of the creek).

Surface runoff from the MSF site discharges to storm drains that outlet to Dominguez Channel, which drains a highly industrialized area with numerous sources of pollution that contribute to poor sediment quality both within the channel and in adjacent Inner Harbor areas (LARWQCB 2019). Ballona Creek Reach 1 (above National Boulevard) and Dominguez Channel (above 135th Street) have multiple beneficial uses (LARWQCB 2019). Both Ballona Creek Reach 1 and Dominguez Channel are impaired water bodies that contain pollutants such as zinc, copper, lead, and trash (LARWQCB 2021).

High Receiving Water Risk Watersheds are sediment-sensitive or have beneficial uses of spawning, reproduction, and/or early development, migration of aquatic organisms, and cold freshwater habitat, none of which are applicable to the Ballona Creek nor Dominguez Channel Watershed. Therefore, none of the watersheds in the RSA are at a high receiving water risk.

FIGURE 3.12-2. REGIONAL STORM DRAIN NETWORK



Source: Metro 2023; Connect Los Angeles Partners 2024

3.12.5.1.4 FLOODPLAINS

Federal Emergency Management Agency (FEMA) issues Flood Insurance Rate Maps to delineate Special Flood Hazard Area (SFHAs), Base Flood Elevations, and insurance risk premium zones. SFHAs are defined as the area that will be inundated by a flood event having a 1 percent chance of being equaled or exceeded in any given year. The 1 percent-annual-chance flood is also referred to as the base flood or 100-year flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2 percent-annual-chance flood, are labeled Zone X (unshaded). Moderate flood hazard areas, labeled Zone X (shaded), are also shown on the Flood Insurance Rate Maps and are the areas between the limits of the base flood and the 0.2 percent-annual-chance (or 500-year) flood.

The RSAs of the alignments that fall within higher flood hazard risk areas include the Midtown Crossing Station and the southern portion of the track alignment between Exposition Boulevard and Jefferson Boulevard (Figure 3.12-3). The SFHA at the Midtown Crossing Station is SFHA Zone AO, which spans 0.8 mile west to 1.9 miles east of the Midtown Crossing Station and is roughly 900 feet in width. SFHA Zone AO signifies this is a river or stream flood hazard area with a 1 percent or greater chance of shallow flooding each year, usually in the form of sheet flow. The average flood depth in this area immediately upstream of Ballona Creek Reach 1 is two to three feet. The SFHA between Exposition Boulevard and Jefferson Boulevard is SFHA Zone AE, with a base flood elevation of 112 feet where the alignments cross the flood zone. The Hollywood Bowl Design Option and the proposed MSF are located fully in Zone X (unshaded), signifying minimal flood hazard risk. Moderate flood hazard areas, Zone X (shaded) locations are summarized in Table 3.12-1.

TABLE 3.12-1. SFHA ZONE X (MODERATE FLOOD HAZARD) LOCATIONS ALONG ALIGNMENTS

LOCATION	SAN VICENTE–FAIRFAX	FAIRFAX	LA BREA
North/South between W Adams Boulevard and W Jefferson Boulevard	X	X	X
North/South between W Washington Boulevard and I-10	X	X	X
La Brea Avenue	X	X	X
3rd Street	X	X	
East/West between La Cienega Boulevard and W San Vicente Boulevard	X		

Source: FEMA National Flood Hazard Layer Viewer, accessed 2023
FEMA = Federal Emergency Management Agency; SFHA = Special Flood Hazard Areas

FIGURE 3.12-3. FEMA FLOOD ZONES

Source: FEMA 2021; Connect Los Angeles Partners 2024

3.12.5.1.5 GROUNDWATER BASINS

As shown in Figure 3.12-4, the RSA is completely located in the Los Angeles Coastal Plain Groundwater Basin and spans three subbasins: Central Subbasin, Hollywood Subbasin, and West Coast Subbasin. The Central Subbasin spans all of the alignments south of Beverly Boulevard. The Hollywood Subbasin spans the Hollywood Bowl Design Option, the portions of the KNE San Vicente–Fairfax and Fairfax Alignments north of 3rd Street, and the portions of the KNE La Brea Alignment north of Beverly Boulevard. The MSF is located in the West Coast Subbasin. The Central Subbasin, Hollywood Subbasin, and West Coast Subbasin have the following beneficial uses: municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply (California Department of Water Resources [DWR] 2004a, 2004b, 2004c).

The general hydrogeologic setting of the Central Subbasin is grouped into two main aquifer systems: the semi-perched aquifer systems of the Alluvium and the Lakewood Formations and the saturated San Pedro and Fernando Formations. Groundwater table depths vary between 10 feet and 90 feet below ground surface (bgs) along all alignments, 80 feet to 100 feet bgs for the Hollywood Bowl Design Option, and 40 feet bgs for the MSF (Los Angels Bureau of Engineering n.d.).

Historically, groundwater flow in the Central Subbasin has been from recharge areas in the northeast part of the subbasin, toward the Pacific Ocean on the southwest. However, pumping has lowered the water level in the Central Basin (DWR 2004a).

Between the Expo/Crenshaw Station and the Midtown Crossing Station, the Lakewood Formation is relatively shallow. It has similar composition as the overlaying alluvial deposits and similar semi-perched conditions with unsaturated zones. Tar-impacted soils found in the middle of the alignments near Wilshire Boulevard also act as a relatively impermeable layer, trapping groundwater in the overlaying Lakewood Formation.

The general hydrogeologic setting of the Hollywood Subbasin can be characterized by a thicker Lakewood Formation in the northern part of the RSA and south of the Hollywood Fault. Along Santa Monica Boulevard, groundwater appears to be deeper than in the southern portion of the RSA, as many of the boreholes drilled along Santa Monica Boulevard did not encounter groundwater. Unconfined groundwater conditions exist in the shallow aquifers in the northern and eastern portions of the subbasin. In the deeper aquifers and in the remainder of the subbasin, groundwater is confined. Clay deposits separate the aquifers over much of the subbasin.

The general hydrogeologic setting of the West Coast Subbasin is characterized by water-bearing deposits, which include the unconsolidated and semi-consolidated marine and alluvial sediments of the Holocene, Pleistocene, and Pliocene ages. Discharge of groundwater from the subbasin occurs primarily by pumping (DWR 2004c).

FIGURE 3.12-4. GROUNDWATER BASINS

Source: DWR 2004a, 2004b, 2004c; Connect Los Angeles Partners 2024

The DWR prioritizes groundwater basins based on factors such as population, irrigated acreage, and the number of wells that draw from the basin (see Water Code §10933). This is known as basin prioritization. A very low priority signifies no major changes in factors outlined in Water Code §10933 and no need for a groundwater sustainability plan. Both the Central Subbasin and Hollywood Subbasin have very low basin prioritization and do not have associated groundwater sustainability plans (i.e., sustainable groundwater management plans). The West Coast Subbasin is adjudicated, which means the court appointed DWR to serve as Watermaster to account for all water rights and groundwater extraction amounts per year within that subbasin (West Basin Municipal Water District 2023). The adjudication limits the allowable annual extraction of groundwater per water rights holder within the West Coast Subbasin in order to prevent seawater intrusion and an unhealthy groundwater level.

3.12.5.1.6 GROUNDWATER QUALITY

Groundwater quality in the RSA may be affected by areas where there are improperly stored petroleum fuels, solvents, and other constituents of concern. These areas have been identified and are being tracked by the SWRCB. Cleanup projects for additional constituents of concern are tracked by the Department of Toxic Substances Control (DTSC). SWRCB Geotracker lists the status of leaking underground storage tank cleanup sites and cleanup program sites by subbasin; the DTSC EnviroStor database lists the status of all tracked cleanup projects. Open and active cleanup sites in the RSA are shown in Figure 3.12-5. Multiple cleanup sites shown below overlap with Recognized Environmental Condition (REC) sites identified in Section 3.11, Hazards and Hazardous Materials, due to similar potential impacts from hazardous substances or petroleum products. The KNE San Vicente–Fairfax Alignment has 15 open cleanup sites within its RSA (Sites 1 through 13, 27, and 28 on Figure 3.12-5); the KNE Fairfax Alignment has 10 (Sites 1 through 5, 9 through 10, 12, and 27); and the KNE La Brea Alignment has 20 (Sites 1, 2, 8 through 10, 12, and 14 through 27). There are no open cleanup sites in the MSF RSA (SWRCB 2020; DTSC 2024).

FIGURE 3.12-5. OPEN AND ACTIVE CLEANUP SITES

Site No.	Site Name	Address	Source
1	System Cleaners	3631 Crenshaw Bl.	SWRCB
2	Oz Owner, LLC	3000 Crenshaw Bl.	SWRCB
3	Splendid Cleaners	1226 Cochran Av.	SWRCB
4	Danny's Dry Cleaning (Former)	5511-5519 San Vicente Bl.	SWRCB
5	Mas Auto Service	371 Fairfax Av.	SWRCB
6	LACMTA Southern CA RTD	8800 Santa Monica Bl.	SWRCB
7	Canyon Cleaner Facility (Former)	8725 Santa Monica Bl.	SWRCB
8	Bel Air Carwash	1041 La Brea Av.	SWRCB
9	Los Tacos #3	1043 La Brea Av.	SWRCB
10	21st Century Auto Body	1045 La Brea Av.	SWRCB
11	Crescent Shopping Center	8100-8136 Santa Monica Bl.	SWRCB
12	Ba Studio	7144 Santa Monica Bl.	SWRCB
13	Four Seasons Dry Cleaners & Laundry	8042 Santa Monica Bl.	SWRCB
14	Texaco Station (Former)	300 La Brea Av.	SWRCB
15	Continental Graphics Facility (Former)	181 La Brea Av.	SWRCB
16	Continental Graphics Facility (Former)	101N, 101S, 111S La Brea Av.	SWRCB
17	Chevron #9-0726	7020 Beverly Bl.	SWRCB
18	Liberty Car & Truck Rental (Former)	800 La Brea Av.	SWRCB
19	Funk Bros (Former)	843 La Brea Av.	SWRCB
20	Mole Richardson Company	937 Sycamore Av.	SWRCB
21	SoCal Gas	7171 Romaine St.	SWRCB
22	Stonecast Design	1005 La Brea Av.	SWRCB
23	Valley Sound	1023 La Brea Av.	SWRCB
24	Foundation House	1003 La Brea Av.	SWRCB
25	Bellino Property	1037 La Brea Av.	SWRCB
26	Shell #204-3490-0401	1309 La Brea Av.	SWRCB
27	Esquire Quality Cleaners	4356 W. Adams Bl.	DTSC
28	Peter's Magnolia Cleaners	8301 Santa Monica Bl.	DTSC

Source: SWRCB 2020; DTSC 2024; Connect Los Angeles Partners 2024

3.12.6 PROJECT MEASURES

Project measures are design features, best management practices, or other commitments that Metro would implement as part of all proposed alignments, the design option, and the MSF to reduce or avoid environmental effects associated with project construction and operation. Project measures are not the same as mitigation measures, which are used to reduce an environmental impact's significance level. Where applicable, project measures are also discussed in Section 3.12.7 as part of the evaluation of environmental impacts.

3.12.6.1 PM HWQ-1: CONSTRUCTION BEST MANAGEMENT PRACTICES

Construction best management practices (BMPs) include, but shall not be limited to, the following:

- Establishment of an erosion and sediment control plan prior to the initiation of construction activities. The plan shall outline temporary soil stabilization and sediment control BMPs to counter erosion and movement of sediment via wind, vehicles, and dust produced during construction activities. The erosion and sediment control plan may be included as an attachment to the construction SWPPP. Rainfall erosivity risks outlined in the SWPPP can be reduced by limiting the number of rainy seasons associated with the project's construction timeline.
- Development of a SWPPP to comply with all requirements of the Construction General NPDES Permit.
- Dewatering and groundwater disposal in compliance with applicable dewatering permits, including LARWQCB Order No. R4-2023-0429.
- Implementation of drainage and grading plans and treatment control BMPs designed to protect water quality, such as oil/water separators, catch basin inserts, storm drain inserts, media filtration, and catch basin screens.

3.12.6.2 PM HWQ-2: OPERATIONAL BEST MANAGEMENT PRACTICES

Operational BMPs include, but shall not be limited to, the following:

- Implementation of MS4 permit post-construction water quality requirements, low-impact development (LID) standards, and local policies protecting water quality, including design features to reduce impervious surfaces and treatment of stormwater runoff using LID infiltration BMPs such as bioretention facilities or pervious pavement.
- Treatment of pumped groundwater via media filtration BMPs or via a water treatment facility.

3.12.6.3 PM HWQ-3: FLOOD EVENTS (ALIGNMENTS ONLY)

If a flood event occurs in a FEMA flood zone during construction of the project, construction activities shall cease and equipment and materials shall be moved to a safe location outside the floodwaters.

3.12.7 IMPACT EVALUATION AND MITIGATION MEASURES

This analysis presents the construction and operational impacts for hydrologic resources and water quality, as well as any applicable mitigation measures associated with KNE. A summary of the impact conclusions and applicable mitigation measures is found in Table 3.12-2 in Section 3.12.7.7.

3.12.7.1 IMPACT HWQ-1: WATER QUALITY

Impact HWQ-1: Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

3.12.7.1.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.12.7.1.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Along the KNE San Vicente–Fairfax Alignment, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicles tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concern, including oil, grease, and heavy metals, if they are not properly maintained and stored. As required by project measure PM HWQ-1, a construction SWPPP would be prepared to reduce any impacts related to stormwater runoff in compliance with SWRCB's Construction General NPDES Permit.

The groundwater table along the alignment can be as high as 10 feet bgs. Groundwater is likely to be encountered during construction at the Wilshire/Fairfax, Fairfax/3rd, La Cienega/Beverly, San Vicente/Santa Monica, La Brea/Santa Monica, and Hollywood/Highland Stations, which would necessitate dewatering activities and disposal of the collected groundwater. However, project measure PM HWQ-1 requires dewatering and groundwater disposal activities to comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004); this construction dewatering permit includes limitations on discharge of waste and potentially contaminated groundwater from dewatering activities into surface waters, which could otherwise infiltrate into groundwater. Compliance with this permit would minimize impacts on both surface water quality and groundwater quality.

As described above, with implementation of project measure PM HWQ-1, construction impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.12.7.1.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. The tunnel alignment has eight locations where a sump pump is being considered in preliminary planning to manage groundwater seepage and/or emergency flooding during operation. This tunnel groundwater or floodwater could pick up metals, petroleum products, or byproducts associated with light rail vehicle (LRV) operations. Project measure PM HWQ-2 includes BMPs that would comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004), which requires these pumped flows to be treated before connecting and comingling with storm drain flows or would require direct routing to a sewer system. With implementation of the post-construction BMPs in project measure PM HWQ-2, operational impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.12.7.1.2 KNE FAIRFAX ALIGNMENT

3.12.7.1.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Along the KNE Fairfax Alignment, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicles tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concern, including oil, grease, and heavy metals, if they are not properly maintained and stored. As required by project measure PM HWQ-1, a construction SWPPP would be prepared to reduce any impacts related to stormwater runoff in compliance with SWRCB's Construction General NPDES Permit.

The groundwater table along the alignment can be as high as 10 feet bgs. Groundwater is likely to be encountered during construction at the Wilshire/Fairfax, Fairfax/3rd, La Brea/Santa Monica, and Hollywood/Highland Stations, which would necessitate dewatering activities and disposal of the collected groundwater. However, project measure PM HWQ-1 requires dewatering and groundwater disposal activities to comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004); this construction dewatering permit includes limitations on discharge of waste and potentially contaminated groundwater from dewatering activities into surface waters, which could otherwise infiltrate into groundwater. Compliance with this permit would minimize impacts on both surface water quality and groundwater quality.

As described above, with implementation of project measure PM HWQ-1, construction impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.12.7.1.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. The tunnel alignment has five locations where a sump pump is being considered in preliminary planning to manage groundwater seepage and/or emergency flooding during operation. This tunnel groundwater or floodwater could pick up metals, petroleum products, or

byproducts associated with LRV operations. Project measure PM HWQ-2 includes BMPs that would comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004), which requires these pumped flows to be treated before connecting and comingling with storm drain flows or would require direct routing to a sewer system. With implementation of the post-construction BMPs in project measure PM HWQ-2, operational impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.12.7.1.3 KNE LA BREA ALIGNMENT

3.12.7.1.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Along the KNE La Brea Alignment, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicles tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concern, including oil, grease, and heavy metals, if they are not properly maintained and stored. As required by project measure PM HWQ-1, a construction SWPPP would be prepared to reduce any impacts related to stormwater runoff in compliance with SWRCB's Construction General NPDES Permit.

The groundwater table along the alignment can be as high as 10 feet bgs. Groundwater is likely to be encountered during construction at the Wilshire/La Brea, La Brea/Beverly, La Brea/Santa Monica, and Hollywood/Highland Stations, which would necessitate dewatering activities and disposal of the collected groundwater. However, project measure PM HWQ-1 requires dewatering and groundwater disposal activities to comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004); this construction dewatering permit includes limitations on discharge of waste and potentially contaminated groundwater from dewatering activities into surface waters, which could otherwise infiltrate into groundwater. Compliance with this permit would minimize impacts on both surface water quality and groundwater quality.

As described above, with implementation of project measure PM HWQ-1, construction impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.12.7.1.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. The tunnel alignment has four locations where a sump pump is being considered in preliminary planning to manage groundwater seepage and/or emergency flooding during operation. This tunnel groundwater or floodwater could pick up metals, petroleum products, or byproducts associated with LRV operations. Project measure PM HWQ-2 includes BMPs that would comply with LARWQCB Order No. R4-2023-0429 (NPDES No. CAG994004), which requires these pumped flows to be treated before connecting and comingling with storm drain flows or would require direct routing to a sewer system. With implementation of the post-construction BMPs in project measure PM HWQ-2, operational impacts related to water quality standards, waste discharge requirements, and

groundwater quality would be avoided or minimized. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.12.7.1.4 HOLLYWOOD BOWL DESIGN OPTION

3.12.7.1.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Along the Hollywood Bowl Design Option underground alignment and station, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns such as oil, grease, and heavy metals if not properly maintained and stored. As required by PM HWQ-1, a construction SWPPP would be prepared to reduce any potential impacts related to stormwater runoff in compliance with SWRCB's Construction General NPDES Permit.

The groundwater table along the Hollywood Bowl Design Option is 90 feet bgs, and the maximum depth to the bottom of the proposed tunnel is roughly 110 feet bgs. Groundwater is likely to be encountered during construction of the Hollywood Bowl Design Option.

As described above, with implementation of project measure PM HWQ-1, construction impacts related to water quality standards, waste discharge requirements, and groundwater quality would be avoided or minimized. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.12.7.1.4.2 OPERATIONAL IMPACTS

No Impact. The Hollywood Bowl Design Option tunnel alignment would not have sumps; therefore, it would have no impact during operation.

3.12.7.1.5 MAINTENANCE AND STORAGE FACILITY

3.12.7.1.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. For the MSF, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns, such as oil, grease, and heavy metals, if not properly maintained and stored. As required by project measure PM HWQ-1, a construction SWPPP would be prepared to reduce any impacts related to stormwater runoff in compliance with SWRCB's Construction General NPDES Permit. Therefore, the MSF would have a less than significant impact during construction.

3.12.7.1.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operational activities at the MSF site would include, but would not be limited to, dismantling, storing, lubricating, maintaining, painting, and/or washing of LRVs and equipment. Stormwater discharge and authorized non-stormwater discharges associated with these industrial

activities could affect water quality and, therefore, are regulated by the IGP. Operation of the MSF would comply with applicable permits and post-construction BMPs required by these permits and as set forth in project measure PM HWQ-2. Therefore, the MSF would have a less than significant impact during operation.

3.12.7.2 IMPACT HWQ-2: GROUNDWATER SUPPLIES AND RECHARGE

Impact HWQ-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?

3.12.7.2.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.12.7.2.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The groundwater table in the KNE San Vicente–Fairfax Alignment RSA can be as high as 10 feet bgs, so groundwater is likely to be encountered during excavation activities associated with tunnel and station construction. Construction of tunnels and stations below the water table may require temporary dewatering, which could cause temporary impacts on groundwater supplies and recharge. The volume of temporary dewatering during construction would be limited to the tunnels and dewatering shafts, which is insignificant given the scale of the groundwater basin and its associated storage volume. As part of project measure PM HWQ-1, dewatering and disposal of groundwater would be tested and properly disposed under LARWQCB Order No. R4-2023-0429. Groundwater recharge to the groundwater basins would not be impeded by tunnel and station construction. Based on this analysis, construction activities associated with the alignment would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basins. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.12.7.2.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE San Vicente–Fairfax Alignment would not include operational phase groundwater extraction so it would not decrease groundwater supplies. The RSA is not located within identified groundwater recharge areas or basins and is primarily covered with impervious surfaces, which prevents surface water from percolating to groundwater. The tunnel would not change existing surface cover or groundwater recharge capabilities, and there would be minimal to no increase in impervious surfaces associated with station entrances. As a result, the alignment would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.12.7.2.2 KNE FAIRFAX ALIGNMENT

3.12.7.2.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The groundwater table in the KNE Fairfax Alignment RSA can be as high as 10 feet bgs, so groundwater is likely to be encountered during excavation activities associated with tunnel and station construction. Construction of tunnels and stations below the water table may require temporary dewatering, which could cause temporary impacts on groundwater supplies and recharge. The volume of temporary dewatering during construction would be limited to the tunnels and dewatering shafts, which is insignificant given the scale of the groundwater basin and its associated storage volume. As part of project measure PM HWQ-1, dewatering and disposal of groundwater would be tested and properly disposed under LARWQCB Order No. R4-2023-0429. Groundwater recharge to the groundwater basins would not be impeded by tunnel and station construction. Based on this analysis, construction activities associated with the alignment would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basins. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.12.7.2.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE Fairfax Alignment would not include operational phase groundwater extraction, so it would not decrease groundwater supplies. The RSA is not located within identified groundwater recharge areas or basins and is primarily covered with impervious surfaces, which prevents surface water from percolating to groundwater. The tunnel would not change existing surface cover or groundwater recharge capabilities, and there would be minimal to no increase in impervious surfaces associated with station entrances. As a result, the alignment would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.12.7.2.3 KNE LA BREA ALIGNMENT

3.12.7.2.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The groundwater table in the KNE La Brea Alignment RSA can be as high as 10 feet bgs, so groundwater is likely to be encountered during excavation activities associated with tunnel and station construction. Construction of tunnels and stations below the water table may require temporary dewatering, which could cause temporary impacts on groundwater supplies and recharge. The volume of temporary dewatering during construction would be limited to the tunnels and dewatering shafts, which is insignificant given the scale of the groundwater basin and its associated storage volume. As part of project measure PM HWQ-1, dewatering and disposal of groundwater would be tested and properly disposed under LARWQCB Order No. R4-2023-0429. Groundwater recharge to the groundwater basins would not be impeded by tunnel and station construction. Based on this analysis, construction activities associated with the alignment would not substantially decrease groundwater supplies or

interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basins. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.12.7.2.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE La Brea Alignment would not include operational phase groundwater extraction, so it would not decrease groundwater supplies. The RSA is not located within identified groundwater recharge areas or basins and is primarily covered with impervious surfaces, which prevents surface water from percolating to groundwater. The tunnel would not change existing surface cover or groundwater recharge capabilities, and there would be minimal to no increase in impervious surfaces associated with station entrances. As a result, the alignment would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.12.7.2.4 HOLLYWOOD BOWL DESIGN OPTION

3.12.7.2.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The groundwater table in the Hollywood Bowl Design Option RSA can be as high as 90 feet bgs, and the maximum depth to the bottom of the proposed tunnel is roughly 110 feet bgs. As a result, groundwater is likely to be encountered. Construction of the tunnel alignment and connecting stations below the water table may require temporary dewatering, which could cause temporary impacts on groundwater supplies and recharge. The volume of temporary dewatering during construction would be limited to the tunnel and dewatering shaft, which is insignificant given the scale of the groundwater basin and its associated storage volume. As part of PM HWQ-1, groundwater would be tested and properly disposed under LARWQCB Order No. R4-2018-0125. Groundwater recharge to the groundwater basins would not be impeded. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.12.7.2.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. The Hollywood Bowl Design Option would not include operational phase groundwater extraction, so it would not decrease groundwater supplies. Operation of the tunnel alignment and station for the Hollywood Bowl Design Option would not change existing surface cover or groundwater recharge capabilities. The RSA for the Hollywood Bowl Design Option is not located within identified groundwater recharge areas or basins and are primarily covered with impervious surfaces, which prevents surface water from percolating to groundwater. There would be minimal to no increase in impervious surfaces associated with station entrance construction. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.12.7.2.5 MAINTENANCE AND STORAGE FACILITY

3.12.7.2.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The MSF RSA is located within the West Coast Subbasin and has highly impervious existing surface cover. Construction of the MSF would require demolition of existing paved surfaces; final grading and paving would be shown on the final design plan. The finished grades are anticipated to be near existing grade (Metro 2023). The groundwater table in the RSA is estimated to be 40 feet bgs, so substantial groundwater dewatering is not anticipated. As a result, construction would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the MSF would have a less than significant impact during construction.

3.12.7.2.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. The MSF RSA is located within the West Coast Subbasin and has highly impervious existing surface cover. Operational activities would not change the amount of impervious surface cover or include groundwater withdrawal from the adjudicated West Coast Subbasin. As a result, operation would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, the MSF would have a less than significant impact during operation.

3.12.7.3 IMPACT HWQ-3: DRAINAGE PATTERNS

Impact HWQ-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a matter which would:

i. result in substantial erosion or siltation on or off site;
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
iv. impede or redirect flood flows.

3.12.7.3.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.12.7.3.1.1 CONSTRUCTION IMPACTS

The subsections below describe construction impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Soil-disturbing construction activities associated with the KNE San Vicente–Fairfax Alignment could cause erosion and siltation. The cut-and-cover construction methods at some construction staging locations could lead to erosion on- or off-site. For instance, demolition of ground surfaces would expose underlaying soils that must be stabilized during construction and during rain events. Smaller-scale construction activities, such as trenching for relocation of utilities and storm drains and demolishing sidewalks, curbs, and gutters for relocation, would also result in potential erosion and siltation. However, project measure PM HWQ-1 requires development of a SWPPP, which would include construction BMPs to minimize or avoid erosion and siltation. Common construction practices include use of erosion control blankets or application of mulch to stabilize disturbed surfaces and the use of silt fences to prevent silt from leaving the project limits. In addition, construction of the alignment would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

SURFACE RUNOFF

Less than Significant Impact. Most construction activities associated with the KNE San Vicente–Fairfax Alignment would occur below the ground surface, and the surface construction associated with stations would be limited to a small area, so there would be a minimal increase in impervious surface area during construction. Detention- or retention-based stormwater quality control measures may be used in the RSA where feasible to comply with LID requirements (Metro 2023) and to address the minimal increases in impervious surface area that would be associated with staging and equipment/truck access. Catch basins or other collection devices might be modified within the station RSAs, but they would be sized and placed appropriately to avoid substantially changing existing drainage patterns. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based upon this analysis, construction of the alignment would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

STORMWATER DRAINAGE

Less than Significant Impact. The tunnel alignment would physically affect four storm drains at the Midtown Crossing Station, two storm drains at the La Cienega/Beverly Station, four storm drains at the San Vicente/Santa Monica Station, and one storm drain at the Fairfax/Santa Monica Station. The City of Los Angeles owns three of these storm drains and Los Angeles County owns the remaining eight, which would necessitate coordination with city and county staff. These conflicts with the tunnel alignment could require rerouting of the storm drains (see Section 3.18, Utilities and Service Systems). However, the storm drains would ultimately connect back into existing systems, so the changes would not have an impact on flow or on the capacity of the stormwater drainage infrastructure. Furthermore, project measure PM HWQ-1 would require the contractor to implement construction BMPs outlined in the SWPPP, which would prevent pollution of stormwater runoff. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA.

Based on this analysis, construction of the alignment would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

FLOOD FLOWS

Less than Significant Impact. The KNE San Vicente–Fairfax Alignment RSA includes portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through areas designated as 100-year and 500-year flood zones would only be a concern where cut-and-cover construction would occur at stations. However, the Crenshaw/Adams, Midtown Crossing, Fairfax/3rd, La Cienega/Beverly, and the San Vicente/Santa Monica Stations would be built during dry weather as feasible and have BMPs in place during wet-weather construction to minimize the potential for temporary flooding impacts during construction. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction would not impede or redirect flood flows. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

DRAINAGE PATTERN CONSTRUCTION IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, construction of the KNE San Vicente–Fairfax Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during construction.

3.12.7.3.1.2 OPERATIONAL IMPACTS

The subsections below describe operational impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Erosion and siltation during operation of the KNE San Vicente–Fairfax Alignment would stem from exposed or unstabilized earthen surfaces around the station entrances; no erosion or siltation would occur at the tunnels because they are fully underground. Post-construction BMPs to minimize erosion and siltation around the station entrances are set forth in project measure PM HWQ-2. In addition, operational activities would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

SURFACE RUNOFF

Less than Significant Impact. Surface runoff during operation of the KNE San Vicente–Fairfax Alignment would occur in the areas surrounding the station entrances at the surface; all other operations would be underground. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

STORMWATER DRAINAGE

Less than Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would comply with post-construction measures in applicable NPDES permits, LID standards, and local policies protecting water quality. Post-construction BMPs are set forth in project measure PM HWQ-2. Operation of the alignment would not exceed the capacity of existing or planned stormwater drainage systems, nor provide substantial additional sources of polluted runoff. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

FLOOD FLOWS

Less than Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would impede or redirect flows if existing drainage patterns are significantly changed or if there are additional flows within the station footprints or tunneled alignment. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Requirements for pumping flows collected at sump locations in the tunnel are set forth in project measure PM HWQ-2 to ensure no flooding would occur in the tunnel. Based on this analysis, operation of the alignment would not impede or redirect flood flows. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

DRAINAGE PATTERN OPERATIONAL IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, operation of the KNE San Vicente–Fairfax Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during operation.

3.12.7.3.2 KNE FAIRFAX ALIGNMENT

3.12.7.3.2.1 CONSTRUCTION IMPACTS

The subsections below describe construction impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Soil-disturbing construction activities associated with the KNE Fairfax Alignment could cause erosion and siltation. The cut-and-cover construction methods at some construction staging locations could lead to erosion on- or off-site. For instance, demolition of ground surfaces would expose underlaying soils that must be stabilized during construction and during rain events. Smaller-scale construction activities, such as trenching for relocation of utilities and storm drains and demolishing sidewalks, curbs, and gutters for relocation, would also result in potential erosion and siltation. However, project measure PM HWQ-1 requires development of a SWPPP, which would include construction BMPs to minimize or avoid erosion and siltation. Common construction practices include use of erosion control blankets or application of mulch to stabilize disturbed surfaces and the use of silt fences to prevent silt from leaving the project limits. In addition, construction of the alignment would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

SURFACE RUNOFF

Less than Significant Impact. Most construction activities associated with the KNE Fairfax Alignment would occur below the ground surface, and the surface construction associated with stations would be limited to a small area, so there would be a minimal increase in impervious surface area during construction. Detention- or retention-based stormwater quality control measures may be used in the RSA where feasible to comply with LID requirements (Metro 2023) and to address the minimal increases in impervious surface area that would be associated with staging and equipment/truck access. Catch basins or other collection devices might be modified within the station RSAs, but they would be sized and placed appropriately to avoid substantially changing existing drainage patterns. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based upon this analysis, construction of the alignment would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

STORMWATER DRAINAGE

Less than Significant Impact. The tunnel alignment would physically affect four storm drains at the Midtown Crossing Station and one storm drain at the Fairfax/Santa Monica Station. The City of Los Angeles owns two of these storm drains and Los Angeles County owns the remaining three, which would necessitate coordination with city and county staff. These conflicts with the tunnel alignment could require rerouting of the storm drains (see Section 3.18, Utilities and Service Systems). However, the storm drains would ultimately connect back into existing systems, so the changes would not have an impact on flow or on the capacity of the stormwater drainage infrastructure. Furthermore, project measure PM HWQ-1 would require the contractor to implement construction BMPs outlined in the SWPPP, which would prevent pollution of stormwater runoff. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction of the alignment would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial

additional sources of polluted runoff. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

FLOOD FLOWS

Less than Significant Impact. The KNE Fairfax Alignment RSA includes portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through areas designated as 100-year and 500-year flood zones would only be a concern where cut-and-cover construction would occur at stations.

For the KNE Fairfax Alignment, the Crenshaw/Adams, Midtown Crossing, and Fairfax/3rd Stations would be built during dry weather as feasible, with BMPs in place during wet-weather construction to minimize the potential for temporary flooding impacts during construction. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction would not impede or redirect flood flows. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

DRAINAGE PATTERN CONSTRUCTION IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, construction of the KNE Fairfax Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during construction.

3.12.7.3.2.2 OPERATIONAL IMPACTS

EROSION AND SILTATION

Less than Significant Impact. Erosion and siltation during operation of the KNE Fairfax Alignment would stem from exposed or unstabilized earthen surfaces around the station entrances; no erosion or siltation would occur at the tunnels because they are fully underground. Post-construction BMPs to minimize erosion and siltation around the station entrances are set forth in project measure PM HWQ-2. In addition, operational activities would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

SURFACE RUNOFF

Less than Significant Impact. Surface runoff during operation of the KNE Fairfax Alignment would occur in the areas surrounding the station entrances at the surface; all other operations would be underground. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding

on- or off-site. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

STORMWATER DRAINAGE

Less than Significant Impact. Operation of the KNE Fairfax Alignment would comply with post-construction measures in applicable NPDES permits, LID standards, and local policies protecting water quality. Post-construction BMPs are set forth in project measure PM HWQ-2. Operation of the alignment would not exceed the capacity of existing or planned stormwater drainage systems, nor provide substantial additional sources of polluted runoff. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

FLOOD FLOWS

Less than Significant Impact. Operation of the KNE Fairfax Alignment would impede or redirect flows if existing drainage patterns are significantly changed or if there are additional flows within the station footprints or tunneled alignment. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Requirements for pumping flows collected at sump locations in the tunnel are set forth in project measure PM HWQ-2 to ensure no flooding would occur in the tunnel. Based on this analysis, operation of the alignment would not impede or redirect flood flows. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

DRAINAGE PATTERN OPERATIONAL IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, operation of the KNE Fairfax Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during operation.

3.12.7.3.3 KNE LA BREA ALIGNMENT

3.12.7.3.3.1 CONSTRUCTION IMPACTS

The subsections below describe construction impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Soil-disturbing construction activities associated with the KNE La Brea Alignment could cause erosion and siltation. The cut-and-cover construction methods at some construction staging locations could lead to erosion on- or off-site. For instance, demolition of ground surfaces would expose underlaying soils that must be stabilized during construction and during rain events. Smaller-scale construction activities, such as trenching for relocation of utilities and storm drains and demolishing sidewalks, curbs, and gutters for relocation, would also result in potential erosion and siltation. However, project measure PM HWQ-1 requires development of a SWPPP, which would include

construction BMPs to minimize or avoid erosion and siltation. Common construction practices include use of erosion control blankets or application of mulch to stabilize disturbed surfaces and the use of silt fences to prevent silt from leaving the project limits. In addition, construction of the alignment would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

SURFACE RUNOFF

Less than Significant Impact. Most construction activities associated with the KNE La Brea Alignment would occur below the ground surface, and the surface construction associated with stations would be limited to a small area, so there would be a minimal increase in impervious surface area during construction. Detention- or retention-based stormwater quality control measures may be used in the RSA where feasible to comply with LID requirements (Metro 2023) and to address the minimal increases in impervious surface area that would be associated with staging and equipment/truck access. Catch basins or other collection devices might be modified within the station RSAs, but they would be sized and placed appropriately to avoid substantially changing existing drainage patterns. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based upon this analysis, construction of the alignment would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

STORMWATER DRAINAGE

Less than Significant Impact. The tunnel alignment would physically affect four storm drains at the Midtown Crossing Station, three storm drains at the Wilshire/La Brea Station, and one storm drain at the La Brea/Beverly Station. The City of Los Angeles owns five of these storm drains and Los Angeles County owns the remaining three, which would necessitate coordination with city and county staff. These conflicts with the tunnel alignment could require rerouting of the storm drains (see Section 3.18, Utilities and Service Systems). However, the storm drains would ultimately connect back into existing systems, so the changes would not have an impact on flow or on the capacity of the stormwater drainage infrastructure. Furthermore, project measure PM HWQ-1 would require the contractor to implement construction BMPs outlined in the SWPPP, which would prevent pollution of stormwater runoff. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction of the alignment would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

FLOOD FLOWS

Less than Significant Impact. The KNE La Brea Alignment RSA includes portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through areas designated as

100-year and 500-year flood zones would only be a concern where cut-and-cover construction would occur at stations.

For the KNE La Brea Alignment, the Crenshaw/Adams and the Midtown Crossing Stations would be built during dry weather as feasible, with BMPs in place during wet-weather construction to minimize the potential for temporary flooding impacts associated during construction. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction would not impede or redirect flood flows. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

DRAINAGE PATTERN CONSTRUCTION IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, construction of the KNE La Brea Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during construction.

3.12.7.3.3.2 OPERATIONAL IMPACTS

EROSION AND SILTATION

Less than Significant Impact. Erosion and siltation during operation of the KNE La Brea Alignment would stem from exposed or unstabilized earthen surfaces around the station entrances; no erosion or siltation would occur at the tunnels because they are fully underground. Post-construction BMPs to minimize erosion and siltation around the station entrances are set forth in project measure PM HWQ-2. In addition, operational activities would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

SURFACE RUNOFF

Less than Significant Impact. Surface runoff during operation of the KNE La Brea Alignment would occur in the areas surrounding the station entrances at the surface; all other operations would be underground. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

STORMWATER DRAINAGE

Less than Significant Impact. Operation of the KNE La Brea Alignment would comply with post-construction measures in applicable NPDES permits, LID standards, and local policies protecting water quality. Post-construction BMPs are set forth in project measure PM HWQ-2. Operation of the alignment would not exceed the capacity of existing or planned stormwater drainage systems, nor provide

substantial additional sources of polluted runoff. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

FLOOD FLOWS

Less than Significant Impact. Operation of the KNE La Brea Alignment would impede or redirect flows if existing drainage patterns are significantly changed or if there are additional flows within the station footprints or tunneled alignment. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Requirements for pumping flows collected at sump locations in the tunnel are set forth in project measure PM HWQ-2 to ensure no flooding would occur in the tunnel. Based on this analysis, operation of the alignment would not impede or redirect flood flows. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

DRAINAGE PATTERN OPERATIONAL IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, operation of the KNE La Brea Alignment would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during operation.

3.12.7.3.4 HOLLYWOOD BOWL DESIGN OPTION

3.12.7.3.4.1 CONSTRUCTION IMPACTS

The subsections below describe construction impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Soil-disturbing construction activities associated with the Hollywood Bowl Design Option could cause erosion and siltation. The cut-and-cover construction methods at some construction staging locations could lead to erosion on- or off-site. For instance, demolition of ground surfaces would expose underlaying soils that must be stabilized during construction and during rain events. Smaller-scale construction activities, such as trenching for relocation of utilities and storm drains and demolishing sidewalks, curbs, and gutters for relocation, would also result in potential erosion and siltation. However, project measure PM HWQ-1 requires development of a SWPPP, which would include construction BMPs to minimize or avoid erosion and siltation. Common construction practices include use of erosion control blankets or application of mulch to stabilize disturbed surfaces and the use of silt fences to prevent silt from leaving the project limits. In addition, construction of the alignment would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

SURFACE RUNOFF

Less than Significant Impact. Most construction activities associated with the Hollywood Bowl Design Option would occur below the ground surface, and the surface construction associated with stations would be limited to a small area, so there would be a minimal increase in impervious surface area during construction. Detention- or retention-based stormwater quality control measures may be used in the RSA where feasible to comply with LID requirements (Metro 2023) and to address the minimal increases in impervious surface area that would be associated with staging and equipment/truck access. Catch basins or other collection devices might be modified within the station RSAs, but they would be sized and placed appropriately to avoid substantially changing existing drainage patterns. In addition, construction would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based upon this analysis, construction of the design option would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

STORMWATER DRAINAGE

Less than Significant Impact. No physical conflicts between existing storm drains and the Hollywood Bowl Design Option tunnel alignment are anticipated. The contractor is required to use the construction BMPs outlined in the SWPPP to prevent pollution of stormwater runoff, as discussed in project measure PM HWQ-1. Thus, construction of the design option would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

FLOOD FLOWS

No Impact. The Hollywood Bowl Design Option is completely outside both the 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. In addition, construction of the design option would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction of the design option would not impede or redirect flood flows. Therefore, the Hollywood Bowl Design Option would have no impact during construction.

DRAINAGE PATTERN CONSTRUCTION IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, construction of the Hollywood Bowl Design Option would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during construction.

3.12.7.3.4.2 OPERATIONAL IMPACTS

EROSION AND SILTATION

Less than Significant Impact. Erosion and siltation during operation of the Hollywood Bowl Design Option would stem from exposed or unstabilized earthen surfaces around the station entrances; no erosion or siltation would occur at the tunnels because they are fully underground. Post-construction BMPs to minimize erosion and siltation around the station entrances are set forth in project measure PM HWQ-2. In addition, operational activities would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

SURFACE RUNOFF

Less than Significant Impact. Surface runoff during operation of the Hollywood Bowl Design Option would occur in the areas surrounding the station entrances at the surface; all other operations would be underground. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

STORMWATER DRAINAGE

Less than Significant Impact. Operation of the Hollywood Bowl Design Option would comply with post-construction measures in applicable NPDES permits, LID standards, and local policies protecting water quality. Post-construction BMPs are set forth in project measure PM HWQ-2. Operation of the design option would not exceed the capacity of existing or planned stormwater drainage systems, nor provide substantial additional sources of polluted runoff. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

FLOOD FLOWS

Less than Significant Impact. Operation of the Hollywood Bowl Design Option would impede or redirect flows if existing drainage patterns are significantly changed or if there are additional flows within the station footprint or tunneled alignment. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would ensure no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Requirements for pumping flows collected at sump locations in the tunnel are set forth in project measure PM HWQ-2 to ensure no flooding would occur in the tunnel. Based on this analysis, operation of the design option would not impede or redirect flood flows. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

DRAINAGE PATTERN OPERATIONAL IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, operation of the Hollywood Bowl Design Option would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during operation.

3.12.7.3.5 MAINTENANCE AND STORAGE FACILITY

3.12.7.3.5.1 CONSTRUCTION IMPACTS

The subsections below describe construction impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

Less than Significant Impact. Soil-disturbing construction activities associated with the MSF could cause erosion and siltation. The surface grading of the MSF could lead to erosion on- or off-site. For instance, demolition of ground surfaces would expose underlaying soils that must be stabilized during construction and during rain events. Smaller-scale construction activities, such as trenching for relocation of utilities and storm drains and demolishing sidewalks, curbs, and gutters for relocation, would also result in potential erosion and siltation. However, project measure PM HWQ-1 requires development of a SWPPP, which would include construction BMPs to minimize or avoid erosion and siltation. Common construction practices include use of erosion control blankets or application of mulch to stabilize disturbed surfaces and the use of silt fences to prevent silt from leaving the project limits. In addition, construction of the MSF would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the MSF would have a less than significant impact during construction.

SURFACE RUNOFF

Less than Significant Impact. Most construction activities associated with the MSF would occur above the ground surface, and the surface construction would include grading and a return to the existing impervious land cover condition. Overall, there would be an increase in impervious surface area during construction. Detention- or retention-based stormwater quality control measures may be used where feasible to comply with LID requirements (Metro 2023) and to address the increases in impervious surface area that would be associated with staging and equipment/truck access or final land cover. Catch basins or other collection devices might be modified within the RSA, but they would be sized and placed appropriately to avoid substantially changing existing drainage patterns. In addition, construction of the MSF would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based upon this analysis, construction of the MSF would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the MSF would have a less than significant impact during construction.

STORMWATER DRAINAGE

Less than Significant Impact. Site development of the proposed MSF would be in proximity to storm drains managed by the City of Los Angeles and Los Angeles County. However, the storm drains would ultimately connect back into existing systems, so the changes would not have an impact on the flow or capacity of the stormwater drainage infrastructure. Furthermore, project measure PM HWQ-1 would require the contractor to implement the construction BMPs outlined in the SWPPP, which would prevent pollution of stormwater runoff. In addition, construction of the MSF would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Based on this analysis, construction of the MSF would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the MSF would have a less than significant impact during construction.

FLOOD FLOWS

No Impact. The MSF would be located outside the 100-year and 500-year floodplains. Construction in this area would not impede or redirect flow. Therefore, the MSF would have no impact during construction.

DRAINAGE PATTERN CONSTRUCTION IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, construction of the MSF would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during construction.

3.12.7.3.5.2 OPERATIONAL IMPACTS

The subsections below describe operational impacts on drainage patterns related to erosion and siltation, surface runoff, stormwater drainage, and flood flows.

EROSION AND SILTATION

No Impact. Erosion and siltation impacts during operation of the MSF that would stem from exposed or unstabilized earthen surfaces around structures, tracks, and associated infrastructure are not applicable in rock-lined or paved areas. In addition, operation of the MSF would not substantially alter the existing drainage pattern in the RSA, and there are no rivers or streams in the RSA. Therefore, the MSF would have no impact during operation.

SURFACE RUNOFF

Less than Significant Impact. Surface runoff during operation of the MSF would occur along impervious surfaces. Post-development BMPs set forth in project measure PM HWQ-2 to capture surface runoff would prevent substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Therefore, the MSF would have a less than significant impact during operation.

STORMWATER DRAINAGE

Less than Significant Impact. Operation of the MSF would comply with post-construction measures in applicable NPDES permits, LID standards, and local policies protecting water quality, as set forth in project measure PM HWQ-2. Operation of the MSF would not exceed the capacity of existing or planned stormwater drainage systems, nor provide substantial additional sources of polluted runoff. Therefore, the MSF would have a less than significant impact during operation.

FLOOD FLOWS

No Impact. The MSF would be located outside the 100-year and 500-year floodplains. Operation in this area would not impede or redirect flow. Therefore, the MSF would have no impact during operation.

DRAINAGE PATTERN OPERATIONAL IMPACT CONCLUSION

Less than Significant Impact. Based on the impacts described in the subsections above, operation of the MSF would not substantially alter the existing drainage pattern of the site or area, and, overall, it would have a less than significant impact during operation.

3.12.7.4 IMPACT HWQ-4: INUNDATION

Impact HWQ-4: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

3.12.7.4.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.12.7.4.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The KNE San Vicente–Fairfax Alignment RSA is not within any identified tsunami or seiche zones (California Geologic Survey 2021). It does include portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through 100-year and 500-year flood zone areas would only be a concern where cut-and-cover construction would occur at stations. However, the Crenshaw/Adams, Midtown Crossing, Fairfax/3rd, La Cienega/Beverly, and San Vicente/Santa Monica Stations would be built during dry weather, as feasible, and they would have BMPs in place during wet-weather construction to minimize the potential for temporary flooding impacts during construction. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters to prevent the release of pollutants due to inundation. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.12.7.4.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE San Vicente–Fairfax Alignment RSA is not within any identified tsunami or seiche zones, and the track alignment would be underground. Stations located within a flood zone would be designed per the guidelines outlined in the 2021 Los Angeles County Floodplain Management Plan, as well as the Los Angeles County codes and ordinances, to avoid inundation. As a result, the potential for release of pollutants during inundation would be minimal. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.12.7.4.2 KNE FAIRFAX ALIGNMENT

3.12.7.4.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The KNE Fairfax Alignment RSA is not within any identified tsunami or seiche zones (California Geologic Survey 2021). It does include portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through 100-year and 500-year flood zone areas would only be a concern where cut-and-cover construction would occur at stations. For the KNE Fairfax Alignment, the Crenshaw/Adams, Midtown Crossing, and Fairfax/3rd Station RSAs would be located in 100-year or 500-year flood zones. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters to prevent the release of pollutants due to inundation. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.12.7.4.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE Fairfax Alignment RSA is not within any identified tsunami or seiche zones, and the track alignment would be underground. Stations located within a flood zone would be designed per the guidelines outlined in the 2021 Los Angeles County Floodplain Management Plan, as well as the Los Angeles County codes and ordinances, to avoid inundation. As a result, the potential for release of pollutants during inundation would be minimal. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.12.7.4.3 KNE LA BREA ALIGNMENT

3.12.7.4.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The KNE La Brea Alignment RSA is not within any identified tsunami or seiche zones (California Geologic Survey 2021). It does include portions within FEMA 100-year and 500-year flood zones. In areas outside of both flood zone categories, there is minimal flood risk during construction; therefore, there is little risk that construction in these areas would impede or redirect flow. Also, due to the underground profile of much of the alignment, construction through 100-year and 500-year flood zone areas would only be a concern where cut-and-cover construction would occur at stations.

For the KNE La Brea Alignment, only the Crenshaw/Adams and Midtown Crossing Station RSAs would be located in 100-year or 500-year flood zones. As required by project measure PM HWQ-3, if a flood event occurs in a FEMA flood zone, construction activities shall cease, and equipment and materials shall be moved to a safe location outside the floodwaters to prevent the release of pollutants due to inundation. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.12.7.4.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. The KNE La Brea Alignment RSA is not within any identified tsunami or seiche zones, and the track alignment would be underground. Stations located within a flood zone would be designed per the guidelines outlined in the 2021 Los Angeles County Floodplain Management Plan, as well as the Los Angeles County codes and ordinances, to avoid inundation. As a result, the potential for release of pollutants during inundation would be minimal. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.12.7.4.4 HOLLYWOOD BOWL DESIGN OPTION

3.12.7.4.4.1 CONSTRUCTION IMPACTS

No Impact. The Hollywood Bowl Design Option RSA is not within any identified tsunami, seiche zones, or flood zones. Therefore, the Hollywood Bowl Design Option would have no impact during construction.

3.12.7.4.4.2 OPERATIONAL IMPACTS

No Impact. The Hollywood Bowl Design Option RSA is not within identified tsunami, seiche, or flood zones. Therefore, the design option would have no impact related to inundation during operation.

3.12.7.4.5 MAINTENANCE AND STORAGE FACILITY

3.12.7.4.5.1 CONSTRUCTION IMPACTS

No Impact. The MSF RSA is not within identified tsunami, seiche, or flood zones. Therefore, the MSF would have no impact during construction.

3.12.7.4.5.2 OPERATIONAL IMPACTS

No Impact. The MSF RSA is not within identified tsunami, seiche, or flood zones. Therefore, the MSF would have no impact during operation.

3.12.7.5 IMPACT HWQ-5: WATER MANAGEMENT

Impact HWQ-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

3.12.7.5.1 KNE SAN VICENTE–FAIRFAX ALIGNMENT

3.12.7.5.1.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The Los Angeles Basin Plan identifies existing beneficial uses for inland surface waters and groundwater basins in the KNE San Vicente–Fairfax Alignment RSA. Therefore, if construction of the alignment were to degrade beneficial uses of Ballona Creek or the Central and Hollywood groundwater subbasins, or result in an exceedance of an established TMDL, it would conflict with the Los Angeles Basin Plan. In addition, Ballona Creek Reach 1 is an inland surface water; during construction, polluted stormwater entering the storm drains that exit at the downstream inland surface water could affect current and potential beneficial uses of Ballona Creek Reach 1. Furthermore, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns, including oil, grease, and heavy metals, if they are not properly maintained and stored. However, project measure PM HWQ-1 would require a construction SWPPP to be prepared, which would reduce impacts related to stormwater runoff, complying with SWRCB's Construction General NPDES Permit.

During construction of the alignment, activities such as groundwater dewatering and excavation below the groundwater table, which is as high as 10 feet bgs in the RSA, as well as accidental hazardous material spills, could affect current and potential beneficial uses of groundwater within the Central and Hollywood Subbasins. However, project measure PM HWQ-1 requires dewatering and groundwater disposal in compliance with applicable dewatering permits to protect the beneficial uses of groundwater basins. Therefore, construction of the alignment would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-1, construction would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during construction.

3.12.7.5.1.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE San Vicente–Fairfax Alignment would conflict with the Los Angeles Basin Plan if it were to degrade beneficial uses of Ballona Creek or the Central and Hollywood Subbasins or result in an exceedance of an established TMDL. However, project measure PM HWQ-2 would require compliance with post-construction measures in NPDES permits, LID standards, and local policies protecting water quality. Compliance with these permits, plans, and policies would minimize runoff volume, prevent contribution to degradation of water quality within Ballona Creek and each groundwater subbasin, and would meet TMDL requirements. Therefore, operation of the alignment would not contribute to degradation of beneficial uses or exceed TMDL requirements in affected surface watershed and groundwater subbasins, and it would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-2, operation would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE San Vicente–Fairfax Alignment would have a less than significant impact during operation.

3.12.7.5.2 KNE FAIRFAX ALIGNMENT

3.12.7.5.2.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The Los Angeles Basin Plan identifies existing beneficial uses for inland surface waters and groundwater basins in the KNE Fairfax Alignment RSA. Therefore, if construction of the alignment were to degrade beneficial uses of Ballona Creek or the Central and Hollywood groundwater subbasins, or result in an exceedance of an established TMDL, it would conflict with the Los Angeles Basin Plan. In addition, Ballona Creek Reach 1 is an inland surface water; during construction, polluted stormwater entering the storm drains that exit at the downstream inland surface water could affect current and potential beneficial uses of Ballona Creek Reach 1. Furthermore, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns, including oil, grease, and heavy metals, if they are not properly maintained and stored. However, project measure PM HWQ-1 would require a construction SWPPP to be prepared, which would reduce impacts related to stormwater runoff, complying with SWRCB's Construction General NPDES Permit.

During construction of the alignment, activities such as groundwater dewatering and excavation below the groundwater table, which is as high as 10 feet bgs in the RSA, as well as accidental hazardous material spills, could affect current and potential beneficial uses of groundwater within the Central and Hollywood Subbasins. However, project measure PM HWQ-1 requires dewatering and groundwater disposal in compliance with applicable dewatering permits to protect the beneficial uses of groundwater basins.

Therefore, construction of the alignment would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-1, construction would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE Fairfax Alignment would have a less than significant impact during construction.

3.12.7.5.2.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE Fairfax Alignment would conflict with the Los Angeles Basin Plan if it were to degrade beneficial uses of Ballona Creek or the Central and Hollywood Subbasins or result in an exceedance of an established TMDL. However, project measure PM HWQ-2 would require compliance with post-construction measures in NPDES permits, LID standards, and local policies protecting water quality. Compliance with these permits, plans, and policies would minimize runoff volume, prevent contribution to degradation of water quality within Ballona Creek and each groundwater subbasin, and would meet TMDL requirements. Therefore, operation of the alignment would not contribute to degradation of beneficial uses or exceed TMDL requirements in affected surface watershed and groundwater subbasins, and it would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-2, operation would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE Fairfax Alignment would have a less than significant impact during operation.

3.12.7.5.3 KNE LA BREA ALIGNMENT

3.12.7.5.3.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The Los Angeles Basin Plan identifies existing beneficial uses for inland surface waters and groundwater basins in the KNE La Brea Alignment RSA. Therefore, if construction of the alignment were to degrade beneficial uses of Ballona Creek or the Central and Hollywood groundwater subbasins, or result in an exceedance of an established TMDL, it would conflict with the Los Angeles Basin Plan. In addition, Ballona Creek Reach 1 is an inland surface water; during construction, polluted stormwater entering the storm drains that exit at the downstream inland surface water could affect current and potential beneficial uses of Ballona Creek Reach 1. Furthermore, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns, including oil, grease, and heavy metals, if they are not properly maintained and stored. However, project measure PM HWQ-1 would require a

construction SWPPP to be prepared, which would reduce impacts related to stormwater runoff, complying with SWRCB's Construction General NPDES Permit.

During construction of the alignment, activities such as groundwater dewatering and excavation below the groundwater table, which is as high as 10 feet bgs in the RSA, as well as accidental hazardous material spills, could affect current and potential beneficial uses of groundwater within the Central and Hollywood Subbasins. However, project measure PM HWQ-1 requires dewatering and groundwater disposal in compliance with applicable dewatering permits to protect the beneficial uses of groundwater basins. Therefore, construction of the alignment would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-1, construction would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE La Brea Alignment would have a less than significant impact during construction.

3.12.7.5.3.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the KNE La Brea Alignment would conflict with the Los Angeles Basin Plan if it were to degrade beneficial uses of Ballona Creek or the Central and Hollywood Subbasins or result in an exceedance of an established TMDL. However, project measure PM HWQ-2 would require compliance with post-construction measures in NPDES permits, LID standards, and local policies protecting water quality. Compliance with these permits, plans, and policies would minimize runoff volume, prevent contribution to degradation of water quality within Ballona Creek and each groundwater subbasin, and would meet TMDL requirements. Therefore, operation of the alignment would not contribute to degradation of beneficial uses or exceed TMDL requirements in affected surface watershed and groundwater subbasins, and it would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the RSA do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-2, operation would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the KNE La Brea Alignment would have a less than significant impact during operation.

3.12.7.5.4 HOLLYWOOD BOWL DESIGN OPTION

3.12.7.5.4.1 CONSTRUCTION IMPACTS

Less than Significant Impact. The Los Angeles Basin Plan identifies existing beneficial uses for inland surface waters and groundwater basins in the Hollywood Bowl Design Option RSA. Therefore, as with the alignments, if construction of the design option were to degrade beneficial uses of Ballona Creek or the Hollywood groundwater subbasin, or result in an exceedance of an established TMDL, it would conflict with

the Los Angeles Basin Plan. In addition, Ballona Creek Reach 1 is an inland surface water (see Section 3.12.5.1.3); during construction of the design option, polluted stormwater entering the storm drains that exits at the downstream inland surface water could affect current and potential beneficial uses of Ballona Creek Reach 1. Furthermore, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concern, including oil, grease, and heavy metals, if they are not properly maintained and stored. However, PM HWQ-1 would require a construction SWPPP to be prepared, which would reduce any potential impacts related to stormwater runoff, complying with SWRCB's Construction General NPDES Permit.

The groundwater table can be as high as 90 feet bgs in the design option RSA, and the maximum depth to the bottom of the proposed tunnel is roughly 110 feet bgs. Therefore, groundwater is likely to be encountered during construction. As described above, project measure PM HWQ-1 would require dewatering and groundwater disposal in compliance with applicable dewatering permits to protect the beneficial uses of groundwater basins. Construction of the design option would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the design option do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As shown in the analysis presented above, with implementation of PM HWQ-1, construction of the Hollywood Bowl Design Option would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during construction.

3.12.7.5.4.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the Hollywood Bowl Design Option would conflict with the Los Angeles Basin Plan if it were to degrade beneficial uses of Ballona Creek or the Hollywood Subbasin or result in an exceedance of an established TMDL. However, PM HWQ-2 would require compliance with post-construction measures in NPDES permits, LID standards, and local policies protecting water quality. Compliance with these permits, plans, and policies would minimize runoff volume, prevent contribution to degradation of water quality within Ballona Creek and each groundwater subbasin, and would meet TMDL requirements. Therefore, operation of the design option would not contribute to degradation of beneficial uses or exceed TMDL requirements in affected surface watershed and groundwater subbasins. Based on the above, operation of the design option would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasins underlying the design option do not have a sustainable groundwater management plan and, thus, no conflict with a sustainable groundwater management plan would occur.

As shown in the analysis presented above, with implementation of PM HWQ-2, operation of the design option would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the Hollywood Bowl Design Option would have a less than significant impact during operation.

3.12.7.5.5 MAINTENANCE AND STORAGE FACILITIES

3.12.7.5.5.1 CONSTRUCTION IMPACTS

Less than Significant Impact. Construction of the MSF would conflict with the Los Angeles Basin Plan if it were to degrade beneficial uses of Ballona Creek, Dominguez Channel, or the West Coast Subbasin, or result in an exceedance of an established TMDL. Polluted stormwater entering the storm drains that exit to Ballona Creek or the Dominguez Channel could affect current and potential beneficial uses of the channels. Furthermore, erosion and sediment-laden runoff from soil-disturbing construction activities, such as construction vehicle tracking over bare soils, excavation, and grading operations, can affect water quality downstream of disturbed areas. Construction vehicles can contribute pollutants of concerns, including oil, grease, and heavy metals, if they are not properly maintained and stored. However, project measure PM HWQ-1 would require a construction SWPPP to be prepared, which would comply with SWRCB's Construction General NPDES Permit.

Construction activities such as grading are not likely to affect the groundwater table, which is as high as 40 feet bgs in the MSF RSA. However, accidental hazardous material spills could affect current and potential beneficial uses of groundwater within the West Coast Subbasin. Project measure PM HWQ-1 requires dewatering and groundwater disposal in compliance with applicable dewatering permits to protect the beneficial uses of groundwater basins. Therefore, construction of the MSF would not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater subbasin underlying the RSA does not have a sustainable groundwater management plan; thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-1, construction of the MSF would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the MSF would have a less than significant impact during construction.

3.12.7.5.5.2 OPERATIONAL IMPACTS

Less than Significant Impact. Operation of the MSF has the potential to affect surface water and groundwater resources and water quality. However, operation, including cleaning of vehicles and other activities that have the potential to affect water quality, would conform with MRDC 11.5 (Metro 2014), which specifies the inclusion of water filtration systems, storage tanks, and wastewater treatment equipment at Metro locations for the carwash and exterior cleaning equipment to ensure treatment prior to discharge. Operation of the MSF would comply with applicable permits, such as SWRCB's IGP and post-construction measures in NPDES permits. In addition, implementation of project measure PM HWQ-2 would require implementation of post-construction BMPs. Thus, operation of the MSF would not substantially degrade surface or groundwater quality and would therefore not conflict with or obstruct implementation of the Los Angeles Basin Plan.

The groundwater basin underlying the RSA does not have a sustainable groundwater management plan; thus, no conflict with a sustainable groundwater management plan would occur.

As described above, with implementation of project measure PM HWQ-2, operation of the MSF would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the MSF would have a less than significant impact during operation.

3.12.7.6 MITIGATION MEASURES

As the impact analysis above demonstrates, construction and operation of any of the KNE alignments and stations, the design option, and the MSF would result in no impact or a less than significant impact related to hydrologic resources and water quality. Therefore, no mitigation is required under CEQA.

3.12.7.7 SUMMARY OF IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES

Table 3.12-2 summarizes the hydrologic resource and water quality impact significance conclusions and applicable mitigation measures. As indicated above, there are no significant hydrologic resource or water quality impacts that would require mitigation.

TABLE 3.12-2. KNE SUMMARY OF IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES

IMPACT		IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES				
		KNE SAN VICENTE–FAIRFAX ALIGNMENT	KNE FAIRFAX ALIGNMENT	KNE LA BREA ALIGNMENT	HOLLYWOOD BOWL DESIGN OPTION	MAINTENANCE AND STORAGE FACILITY
Impact HWQ-1: Water Quality	Impact Before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: No Impact	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact After Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: No Impact	Construction: LTS Operation: LTS
Impact HWQ-2: Groundwater Supplies and Recharge	Impact Before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact After Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HWQ-3: Drainage Patterns	Impact Before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: No Impact
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact After Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
Impact HWQ-4: Inundation	Impact Before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact After Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: No Impact Operation: No Impact	Construction: No Impact Operation: No Impact

IMPACT		IMPACT SIGNIFICANCE CONCLUSIONS AND MITIGATION MEASURES				
		KNE SAN VICENTE–FAIRFAX ALIGNMENT	KNE FAIRFAX ALIGNMENT	KNE LA BREA ALIGNMENT	HOLLYWOOD BOWL DESIGN OPTION	MAINTENANCE AND STORAGE FACILITY
Impact HWQ-5: Water Management	Impact Before Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS
	Mitigation Measures	None Required	None Required	None Required	None Required	None Required
	Impact After Mitigation	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS	Construction: LTS Operation: LTS

Source: Connect Los Angeles Partners 2024
LTS = less than significant impact