



Water Quality Technical Memorandum

Los Angeles – San Diego – San Luis Obispo
Central Coast Layover Facility Project

San Luis Obispo, California

November 2021



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Acronyms

| | |
|----------|--|
| BMP | Best Management Practices |
| CEQA | California Environmental Quality Act |
| CGP | Construction General Permit |
| District | City of San Luis Obispo's Railroad Historic District |
| IGP | Industrial General Permit |
| LOSSAN | Los Angeles – San Diego – San Luis Obispo |
| MOW | Maintenance of Way |
| MS4 | Municipal Separate Storm Sewer Systems |
| NPDES | National Pollution Discharge Elimination System |
| Project | Central Coast Layover Facility Project |
| S&I | service and inspection |
| SWPPP | Stormwater Pollution Prevention Plan |
| U.S. | United States |
| WQTM | Water Quality Technical Memorandum |

1 Introduction

The purpose of the Water Quality Technical Memorandum (WQTM) is to fulfill the requirements of the California Environmental Quality Act (CEQA), and to comply with the National Pollution Discharge Elimination System (NPDES) permitting processes. The WQTM includes a discussion of the Central Coast Layover Facility Project (Project), the physical setting of the area within the Project limits, and the regulatory framework with respect to water quality. The WQTM also provides pertinent information regarding the surface water resources within the Project limits and surrounding area and the water quality of these waters. In addition, the WQTM describes the water quality impairments and beneficial uses, identifies potential water quality impacts/benefits associated with the proposed Project, discusses temporary and permanent water quality issues, and recommends avoidance and minimization measures for potential impacts.

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2 Project Description

2.1 Project Overview

The Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor Agency is proposing the relocation and expansion of the existing Pacific Surfliner layover track and facility, located at the northern end of the LOSSAN rail corridor in San Luis Obispo, California. The proposed Central Coast Layover Facility Project would increase overnight layover and storage capacity to support the service goals and objectives outlined for the Pacific Surfliner in both the 2018 California State Rail Plan (State Rail Plan) and the LOSSAN Rail Corridor Agency’s Fiscal Year 2019-20 and 2020-21 Business Plan (Business Plan).

Currently, one Pacific Surfliner train overnights each day in San Luis Obispo for an early morning departure the following day. Both the State Rail Plan and the LOSSAN Agency Business Plan identify growth in the service levels of the Pacific Surfliner to San Luis Obispo. As currently configured, the existing single-track facility does not have the capacity to accommodate any growth in service levels beyond the current service. The proposed Project will facilitate the maintenance of equipment at the northern terminus of the LOSSAN rail corridor. It will allow additional passenger trains to be maintained, serviced and stored in San Luis Obispo overnight with no impact to the operations of Union Pacific, allowing a second, more convenient, morning departure from San Luis Obispo, subject to Union Pacific approval of the proposed schedule. It will also provide for the opportunity to store and service additional train sets used for further expansion of the Service.

2.2 Project Location

The Project site is located on approximately 13 acres of relatively undeveloped land in the City of San Luis Obispo, which is situated along the Central Coast region of California, approximately 190 miles north of Los Angeles (Figure 1). The existing Pacific Surfliner layover facility is located directly across from the San Luis Obispo Amtrak Station, located at 1011 Railroad Avenue. The Project site is located approximately 0.3-mile south of the San Luis Obispo Amtrak Station. The Project site extends from south of the San Luis Obispo Railroad Museum’s parking lot to east of Lawrence Drive. The Project site is between the Union Pacific Main Tracks and existing commercial and residential development to the west.

As shown on Figure 2, the Project site is located entirely within the City of San Luis Obispo’s Railroad Historic District (District). The District boundary covers approximately one-half square mile and extends along the railroad right-of-way for about 1.7 miles in roughly a north-south axis. The District includes the original railroad yard, plus residential and commercial-zoned property on the west side of the railroad right-of-way (City of San Luis Obispo Community Development Department 1998).

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The map shows the project location in the Central Valley of California. The route is highlighted in yellow, starting from the Central Valley and extending south towards the Pacific Ocean. Key locations along the route include San Luis Obispo, Santa Barbara, Ventura, Los Angeles, and San Diego. The project location is marked with a yellow dot and labeled 'Project Location'.

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Figure 2. Project Limits



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2.3 Proposed Project

The proposed Project includes the construction of a new rail yard, storage and servicing tracks, operations and maintenance buildings, landscape improvements, and safety and security features. Perimeter fencing would be installed around the facility for site security and public safety.

2.3.1 Rail Yard and Tracks

The proposed Project would construct a new rail yard with up to five new tracks, with Track 1 positioned as the westernmost track and Track 5 positioned as the easternmost track.

- Track 1 – Bypass and wash track with train wash building
- Track 2 – Storage track with service and inspection (S&I) position
- Track 3 – Storage track
- Track 4 – Storage track
- Track 5 – Storage track

Trains would enter the site from the mainline switch at the north end of the site, passing through the Train Wash on Track 1. Trains would travel south, passing the train wash building onto the tail track and then reverse direction into either S&I position or to one of the other storage tracks. Upon reaching the S&I position or a storage track, the trains would park for the night, connecting to ground power to allow for the electric functions of the train to continue and connecting to a yard air compressor to keep the brake system charged. These connections allow for continuity of these functions without the locomotive engine running, minimizing engine idling within the facility.

From the S&I or storage positions, daily servicing and light maintenance can occur. Trains stored on the S&I track would also undergo additional safety, operational and reliability inspections.

Trains would exit the facility north toward the San Luis Obispo station at intervals based on the approved and published service schedules.

2.3.2 Buildings

The proposed Central Coast Layover Facility would consist of a series of single-story structures housing a variety of functions including office space, storage space, workshops, train wash, train S&I and wheel truing.

Operations/Fleet Maintenance Building. The Operations Building would be an approximately 3,000 square foot one-story building, which would house administrative offices and restrooms for operations and maintenance staff.

Fleet Maintenance Shops Building. The Fleet Maintenance Shops Building would be a one-story building and approximately 2,900 square feet, and would house a welding/fabrication shop, brake and coupler shop, and toolbox storage.

Parts Storeroom Building. The Parts Storeroom Building would be a one-story building, approximately 1,500 square feet, located adjacent to the Fleet Maintenance Shops Building and Maintenance of Way Building. This building would store components and parts that are required on a frequent basis to support maintenance activities, and would include a dedicated secure area for shipping, receiving and storage.

Maintenance of Way (MOW) Building. The MOW Building would be a one-story building, approximately 2,200 square feet, located adjacent to the Parts Storeroom Building. MOW is responsible for inspection and maintenance of track, roadbed, and buildings. MOW is also responsible for inspection and maintenance of non-revenue vehicles assigned to the Central Coast Layover Facility.

Wash Building. The Wash Building would be a 9-10,000 square feet one-story building, located at the center of the Project site on Track 1. An automatic, drive-through train wash would be enclosed in the Wash Building. As described above, trains entering the maintenance facility would pass through the Train Wash Building for cleaning prior to being placed on one of the storage tracks.

The train wash would operate 7 days per week. Each train arriving at the facility at the end of its service day will enter through the wash, requiring it to run for about 5-10 minutes for each train. The timing of the train wash operation will depend on the approved and published service schedule and would likely be during the evening hours.

Wheel Truing Building. The Wheel Truing Building would be a one-story building, approximately 1,900 square feet in size and located at the north end of the Project site adjacent to the San Luis Obispo Railroad Museum parking lot. The Wheel Truing Building would house an underfloor pit-mounted wheel truing machine. Use of this facility is anticipated to be infrequent and not part of the daily operation.

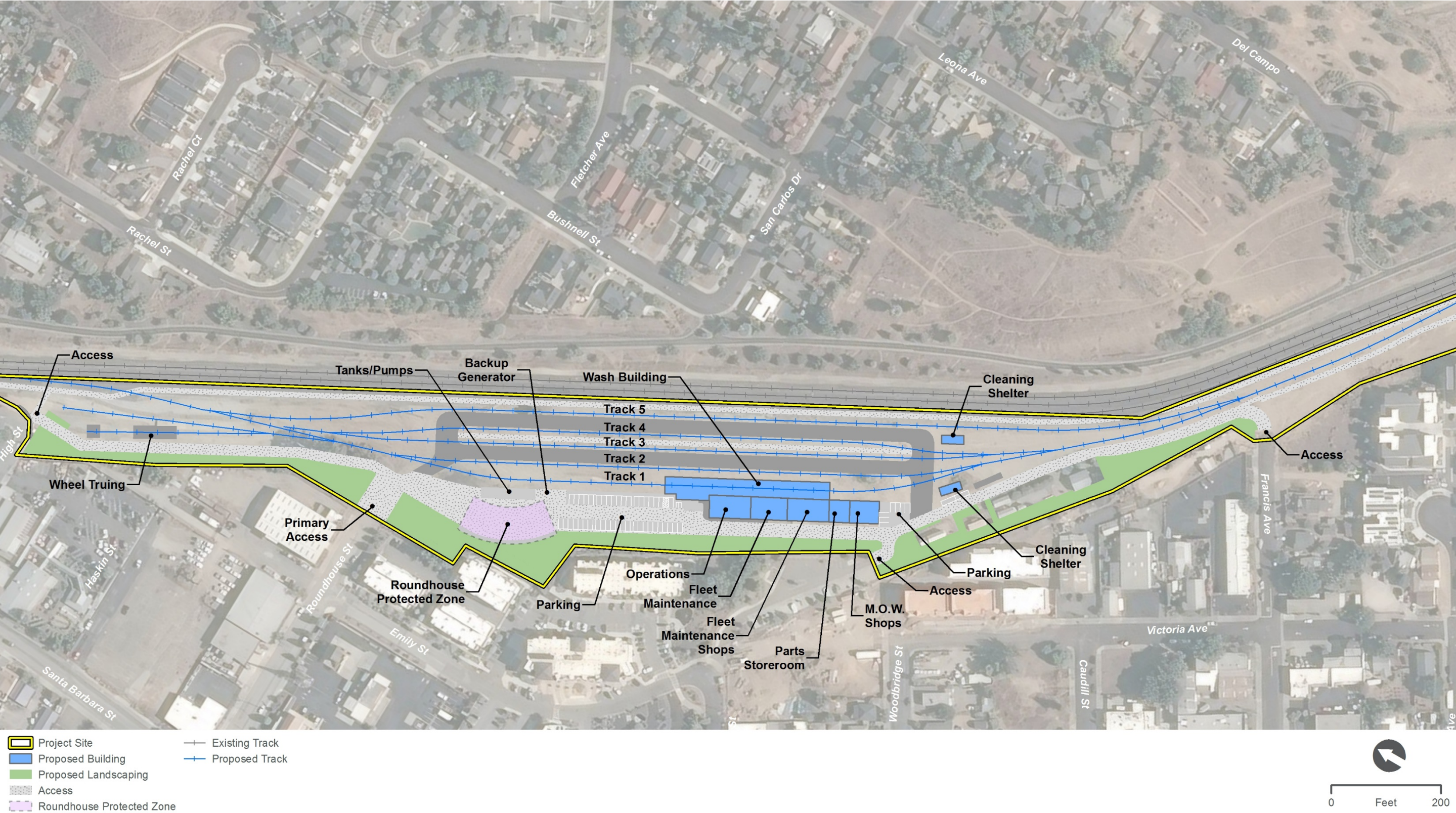
2.3.3 Service and Inspection Shelter

Track 2 would function as a storage track with an S&I position. The S&I track would be covered by a 24' high shelter. To provide access to the underside of a train for inspection and maintenance, a lower-level work area or gauge pit would be installed.

2.3.4 Cleaning Shelters

Two cleaning shelters would be provided south of the Wash Building and storage tracks.

Figure 3. Site Plan





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2.3.5 Parking

The proposed Project would provide a total of 54 on-site parking spaces for employees and visitors. Most of the parking spaces would be located on the west end of the central yard in between the Roundhouse Site and Operations building. The other parking spaces would be located adjacent to the MOW Shops building.

2.3.6 Access

Primary employee and visitor access to the site would be from Roundhouse Avenue. Additional emergency access to the site would be available from the train museum parking lot (north end of site), from the parking lot off Alphonso Street (center of site), and from Francis Avenue (south end of site).

2.3.7 Landscape Plan

The proposed Project would install landscaping to minimize sound by absorbing ambient noise and provide a visual buffer by screening the rail maintenance operations from adjacent neighboring residential and recreational uses. The Project's plant palette will be comprised of species native or fully adapted to San Luis Obispo's climate. The list of species will draw from the San Luis Obispo County-Approved Plant List and the Calscape, or California Native Plant Society, database of plants native to the area. Species will be selected to be relatively low maintenance, have minimal leaf litter, and be non-fruiting so as not to attract vectors or birds.

East Landscape Buffer

Single-family residences overlook the east edge of the Project site, with views toward the hills of the surrounding regional open space west of the city. A Class I bike trail traverses the Historic Railroad District, connecting to regional trails and other San Luis Obispo recreation sites.

Landscape material for the east buffer will be congruent with the existing plant palette – a diverse mix of native/adaptive species consistent with the California chaparral and foothill meadow plant communities. The main objective in enhancing the landscape buffer at the east edge is to frame views over the existing rail yard toward the distant hills, screening the Project site and its enhanced maintenance operations.

West Landscape Buffer and Class I Bike Trail

Multi-family condominiums and apartments are located adjacent to the Project site's western edge. The majority of the on-site landscape buffer area is to be established between the proposed rail improvements and maintenance program elements and these adjacent residences.

Additionally, a new segment of Class I bike trail, from approximately McMillan Avenue to the Amtrak Station, is identified in the City of San Luis Obispo's Active Transportation Plan's Tier 3 Project List as a future Class I trail connecting existing Class I, II, and III segments to comprise the Railroad Safety Trail. This portion is approximately 0.84 miles of new Class I trail. Should project conditions, land use, and right-of-way alignments allow, the proposed project would construct a portion of the new segment of Class I bike trail, from approximately High Street to Francis Street.

The bike path would meander slightly through the landscape buffer, providing users distance from the rail yard operations and limiting the impact of trail activity noise on the adjacent residential communities. This new connection would provide largely protected bike and pedestrian trail access

from the Old Town Historic District through the Railroad Historic District, from the San Luis Obispo Railroad Museum, past the rail yard at Project site, and back into the urban fabric of housing and light commercial use.

2.3.8 Roundhouse Protected Zone

The new segment of Class I bike trail presents the opportunity to facilitate public view of the historic site of the Southern Pacific Railroad roundhouse, where the structure's remnant foundation remains visible. Hosting the last steam locomotive in 1956, the roundhouse was demolished in 1959, with the train depot following in 1971, and finally, the turntable in 1994. The unique historic relevance of the roundhouse continues the rail history narrative set by the Railroad Museum to the north and reinforces the area's designation as the Railroad Historic District.

The Project's program elements would be arranged to avoid significant impact to the roundhouse footing, preserving as much exposed surface for view as possible. The proposed Project would install a transparent perimeter fence along the southwest edge of the roundhouse, where bench seating and interpretive signage will be sited to create an informational node along the active transportation corridor.

2.3.9 Site Security

The site perimeter would be secured with an 8-foot transparent anti-climb fence. Motorized vehicular gates would be provided at all egress/ingress points. Video surveillance cameras would also be installed along the perimeter of the site.

2.3.10 Phasing

Funding is currently not available to construct the entire facility at once. Instead, a phased construction approach is intended, constructing an initial portion of the facility which includes the most immediately needed elements, and adding the remaining components as the need arises and additional funding becomes available. The following sections identify the components that would be constructed under Phase 1 and later phases of the proposed project.

Phase 1

Phase 1 intends to meet or exceed the functionality of the existing layover facility and add layover capacity for at least one additional train. This initial phase would include landscaping and trail enhancements around the Phase 1 footprint as well as water quality improvements and underground utility services to serve the ultimate facility. Phase 1 would include the following project components:

- North portions of West Landscape Buffer, 30 feet with pedestrian/bike path, 20-foot minimum setback plus 10 feet
- East Landscape Buffer, green space enhancement wrapping the existing bike path north-to-south
- Upper Yard/Lower Yard site improvements including:
 - Civil topography, grading, drainage, stormwater utilities
 - North-to-south 20-foot access drive, yard paving and service roads
 - Improvements at "Roundhouse Protected Zone"

- Yard perimeter fencing and gates at access points - one (1) main entry at Roundhouse Street (north end of Central Yard); three (3) emergency access points (north and south end of site, south end of Central Yard); fencing only around yard body
- All railroad maintenance roads and mainline east / west perimeter fencing; yard paving and site access roads
- Trackside shelters and services including waste / recycling enclosure
- Temporary portable buildings for essential work functions
- 1 S&I Position, gage pit with canopy
- 2 storage tracks, including S&I track
- Yard / Exterior Area site improvements including partial build-out of parking and driveway

Later Phases

Later phases would include the remaining Master Plan components as dictated by operational needs and as allowed by available funding. Initially this would focus on all items identified as essential components of the ultimate facility, followed later by those features that would expand overall capacity of the facility, as well as enhance operations and efficiency, but which are not immediately mandatory. The following project components could be constructed on the project site based on operational needs and available funding:

- Remaining portions of West Landscape Buffer, 30 feet with pedestrian/bike path, 20-foot minimum setback plus 10 feet
- Yard/Exterior Area site improvements remaining from Phase 1 including parking, driveway, laydown and enclosed yard areas, emergency generator
- 1 wash track with Train Wash Building foundation and pit / infrastructure
- 1 south tail track and connection
- 3 locomotive storage tracks, including 1 extended-length storage track
- Facility Structures (core/shell, interior build-out, equipment installation)
 - Operations (administration)
 - Fleet Maintenance
 - Fleet Maintenance Shops
 - Parts storeroom
 - MOW Shops foundation/pad
 - Train Wash Building, structure/wash arch/canopy
 - Wheel Truing Building and Support Areas
 - Fueling structure and arch
- Wheel Truing Building trackwork and switch
- Retaining wall and grading to support wheel truing building and trackwork

2.3.11 Construction

As described above, funding is currently not available to construct the entire facility at once. Therefore, a phased construction approach is intended, constructing the Phase 1 project components first, and adding the remaining components as the need arises and additional funding becomes available. The following sections provide details regarding the project timeline and construction process.

Phase 1

Project construction for Phase 1 would begin as early as April 2024 and last for approximately 19 months. The work would begin with ground improvements to prepare the site for construction of buildings. Once the buildings are constructed the tracks would be installed. Construction may involve multiple crews working simultaneously and would include equipment such as track stabilizers, excavators, front-end loaders, rubber-tired dozers, cranes, haul trucks, and water trucks.

A summary of the construction activities associated with Phase 1 is provided below:

- Demolition and Rough Grading
- Utility Relocations
- West/East Landscape Buffer and Bike Path
- Access Drive, yard paving and service roads
- Fencing
- S&I Position, gage pit with canopy
- Storage track and 2 turnouts
- Exterior parking and driveway

Later Phases

Project construction for the later phases would be approximately 16 months in duration. Mobilization and demobilization time would add to the duration for later phases depending on how they end up being broken out, though breaking the remaining work into smaller phases would reduce the magnitude of impact for each smaller phase. A summary of the construction activities associated with later phases is provided below:

- West/East landscape buffer and bike path
- Exterior parking and driveway
- Track construction and 10 turnouts
- Operations building
- Fleet maintenance building
- Parts storeroom
- MOW shops foundation/pad
- Train wash building
- Wheel truing building

- Retaining wall
- Fueling structure

Construction Staging and Access

Material and equipment imports and construction personnel would access the Project study area via walking points from the nearest fence access or staging area. Most construction equipment would be brought to the project site at the beginning of the construction process during construction mobilization and would remain on-site throughout the duration of the construction activities for which they were needed.

Construction activities would be scheduled during time frames that allow for exclusive track occupancy by construction crews to minimize effects on LOSSAN operations. To the greatest extent possible, construction activities would be scheduled during the daytime. No weekend work is anticipated.

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3 Regulatory Background

There are federal, state, and local regulations that are designed to protect water quality. Water quality in the Project area is regulated by the Central Coast Regional Water Quality Control Board (Region 3) through the Water Quality Control Plan (Basin Plan) for the Central Coast Basin (2019).

This Project must conform to all applicable water quality regulations and/or permit requirements of the State Water Resources Control Board and any applicable Central Coast Regional Water Quality Control Board and local requirements including, but not limited to:

- The Construction General Permit (CGP) (Order No. 2009-009-DWQ), adopted September 2, 2009, became effective July 1, 2010. This permit has since been amended twice by Orders No. 2010-0004-DWQ and 2012-0006-DWQ, which are currently in effect. The CGP regulates stormwater discharges from construction sites that result in a disturbed soil area of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than 1 acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plan (SWPPP); implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the CGP.
- On April 30, 2003, as part of Phase II, the State Water Resources Control Board issued a General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4) (Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities (population less than 100,000), including non-traditional Small MS4s, which are facilities such as military bases, public campuses, prisons, and hospital complexes. The Phase II Small MS4 General Permit covers Phase II Permittees statewide. On February 5, 2013, the current Phase II Small MS4 General Permit (Order No. 2013-0001-DWQ) was adopted and became effective on July 1, 2013. The City of San Luis Obispo is a permittee of the Phase II permit. The LOSSAN Rail Corridor Agency was not included in the permit as a non-traditional Small MS4.
- The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ implements the federally required stormwater regulations in California for stormwater associated with industrial activities discharging to waters of the United States (U.S.). The Industrial General Permit (IGP) regulates discharges associated with 10 federally defined categories of industrial activities. The IGP requires the implementation of Best Management Practices (BMP), a site-specific SWPPP, and monitoring plan. The IGP also includes criteria for demonstrating no exposure of industrial activities or materials to stormwater and no discharges to waters of the U.S.

- Stormwater discharge is regulated under Chapter 12.08 – Urban Storm Water Quality Management and Discharge Control of the City of San Luis Obispo Municipal Code. Under Chapter 12.08, discharge of non-stormwater is permissible only when connection to the storm drain system is made in accordance with a valid City of San Luis Obispo permit, approved construction plan, or a NPDES permit and/or Notice of Intent. In addition, projects within the City of San Luis Obispo are required to comply with the requirements of the CGP and the Municipal NPDES Permit, which includes preparation of a SWPPP and implementation of construction and post construction BMPs.

4 Affected Environment

4.1 Hydrology

The proposed Project is in the Lower San Luis Obispo Creek Hydrological Sub-Area 18060060702 (HUC-12) based on the Watershed Boundary Dataset (Figure 4). It is also in the San Luis Obispo Creek Hydrological Sub-Area 310.24 of the Estero Bay Hydrological Unit Area (310) consistent with the Basin Plan. As such, the Project is tributary to the San Luis Obispo Creek, and is also in the Lower San Luis Obispo City of San Luis Obispo sub-watershed identified in the City of San Luis Obispo Drainage Design Manual (Figure 5).

The San Luis Obispo Creek watershed generally drains to the south-southwest via San Luis Obispo Creek where it meets the Pacific Ocean at Avila Beach. San Luis Obispo Creek originates in the Cuesta Grade area north of San Luis Obispo at an elevation of 2,200 feet above mean sea level, in the western slopes of the Santa Lucia Range. San Luis Obispo Creek flows south through the City of San Luis Obispo easterly adjacent to U.S. Highway 101 until it reaches the southern extent of the Irish Hills where it veers west to the ocean.

The main drainage feature is an existing 24-inch reinforced concrete pipe that crosses the middle of the Project site. This private storm drain conveys runoff from the east to the west side of the Project. The site either surface drains separate from or drains offsite along this storm drain.

Based on the Final 2018 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) approved by the State Water Resources Control Board and U.S. Environmental Protection Agency, San Luis Obispo Creek (below Osos Street) is listed on the 303(d) list for Total Maximum Daily Load requirements for nitrate, sodium, chloride, dissolved oxygen, fecal coliform, *Escherichia coli*, and benthic community effects.

The Project is in an urbanized area. No designated wild or scenic rivers are located with the Project vicinity.

4.2 Groundwater

The project site is not underlain by a groundwater basin. However, the surface watershed is adjacent to the San Luis Obispo Valley Groundwater Basin, Area 3-9 (California Department of Water Resources 2003). The project site is tributary to this groundwater basin and the groundwater basins lying beneath the watershed conform with the watershed boundaries and have strong hydrologic connections. During drier times the aquifer is recharged by San Luis Obispo Creek, but during wet years the aquifer may also contribute flow to the creek through seeps. This groundwater supply is also important as nearly 409 acre-feet of groundwater per year are withdrawn for agriculture (California Coastal Conservancy 2002).

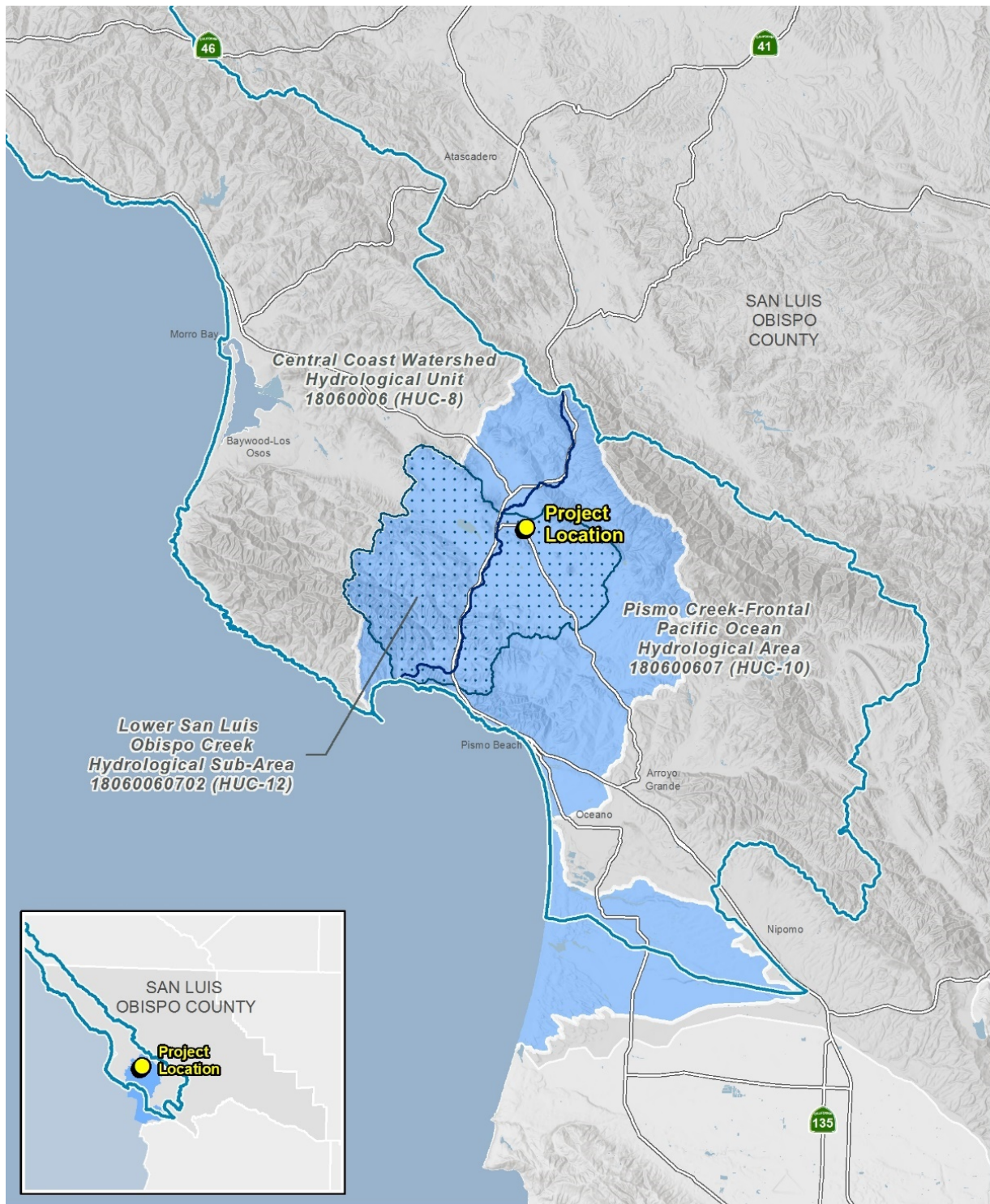
The municipal water supply for San Luis Obispo, however, does not come from within the San Luis Obispo Creek Watershed. It is imported from neighboring watersheds to the north.





The Project is in the San Luis Obispo Valley groundwater basin (No. 3-9).

According to the Hydrologic Report (County of San Luis Obispo 2005) whose data is pulled from Bulletin 118, there are no public wells within a mile of the project. The closest public wells are West San Luis and East San Luis to the southwest and southeast about 8,000 and 7,000 feet, respectively. The ground surface elevation for West San Luis well is 118.9 feet with the groundwater elevation

ranging from approximately 83 and 115 feet. The ground surface elevation for East San Luis well is 165 feet with the groundwater elevation ranging from approximately 140 and 150 feet. Additionally, another source is the Groundwater Sustainability Plan which shows groundwater elevations but only for areas outside the project area (County of San Luis Obispo 2021). However, the lack of more proximate well data makes it challenging to confirm the groundwater elevation at the project. For example, the Project preliminary geotechnical design report did not encounter any groundwater during the field investigation. Based on range of depth of field borings, the groundwater table is greater than 50-foot depth (HDR 2021).

Figure 4. Watersheds Based on Watershed Boundary Dataset



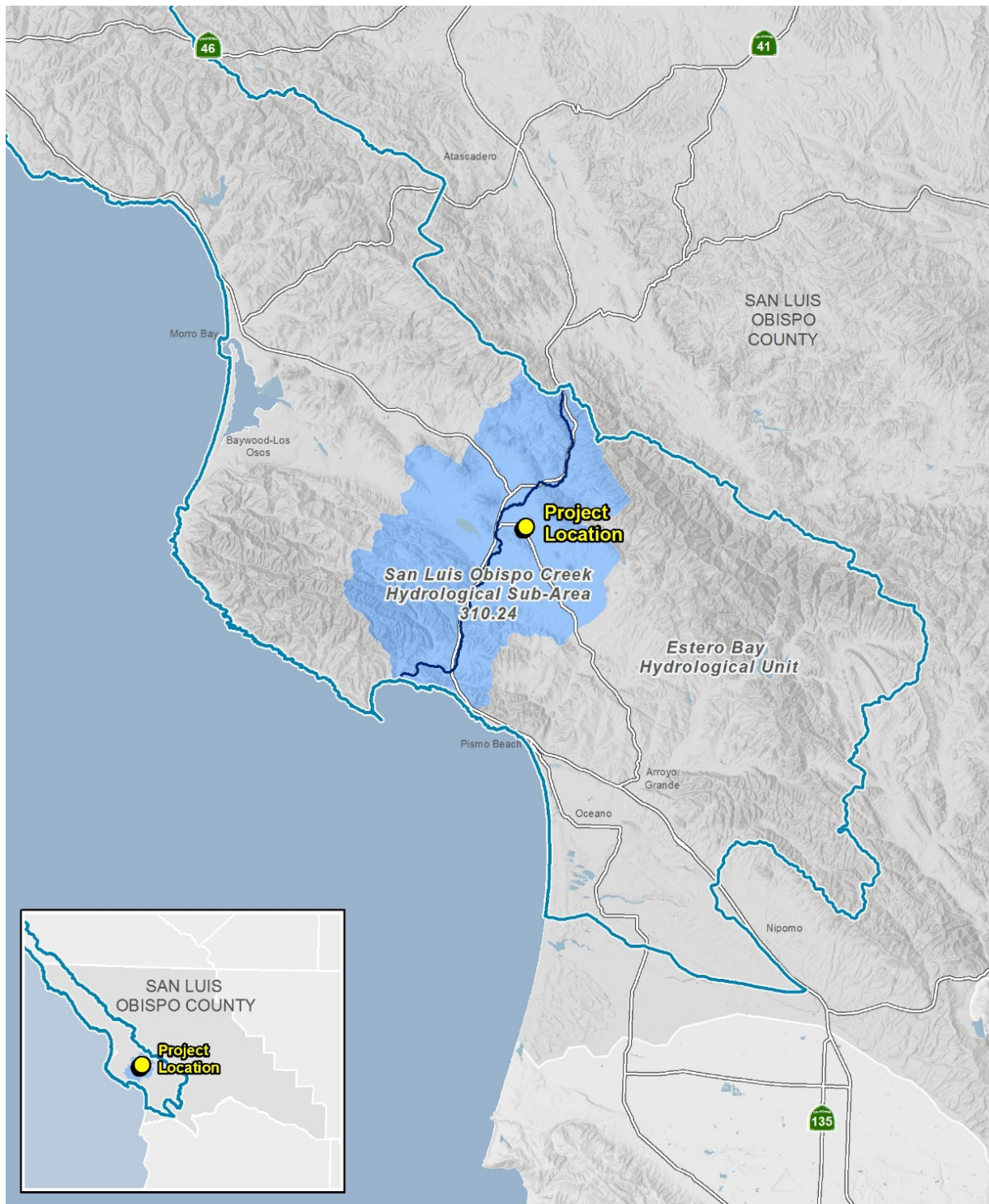
-  Project Location
-  Central Coast Watershed (Hydrologic Unit)
-  Pismo Creek-Frontal Pacific Ocean (Hydrologic Area)
-  San Luis Obispo Creek (Hydrologic Sub-Area)





 San Luis Obispo Creek



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Figure 5. Watersheds Based on Calwater



-  Project Location
-  Estero Bay Hydrologic Unit
-  San Luis Obispo Creek Hydrological Sub-Area 310.24
-  San Luis Obispo Creek



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4.3 Floodplains

According to Federal Emergency Management Agency Flood Insurance Rate Map Panel Number 06079C1069G (San Luis Obispo County, California; last revised November 16, 2012), the Project is in an area determined to be outside the 0.2% annual chance floodplain (Figure 6) or in an area in which flood hazards are undetermined, but possible (in Other Areas category) associated with San Luis Obispo Creek.

The San Luis Obispo Flood Control and Water Conservation District has created zones to provide flood control services for various communities in the county. One of those is the Zone 9 Advisory Committee to provide flood control services for the area encompassing San Luis Obispo Creek and its tributaries. As such, the Project is in Flood Control Zone 9 of the San Luis Obispo Flood Control and Water Conservation District. There is no San Luis Obispo Flood Control and Water Conservation District facility located within the Project limits.

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This aerial map of San Luis Obispo, California, illustrates the proposed LOSSAN Rail Corridor. The corridor is highlighted in yellow, running from the northwest towards the southeast. Key locations marked include the Existing Pacific Surfliner Layover Facility (yellow dot) and the San Luis Obispo Railroad Museum (blue dot). The map also shows the Existing San Luis Obispo Amtrak Station (blue square) and various flood hazard areas (FEMA 1% and 0.2% Annual Chance Flood Hazard). City limits are indicated by a dashed line, and the LOSSAN Rail Corridor is shown as a solid line. A legend at the bottom provides a key for the symbols used.

Legend:

- Project Site
- FEMA 1% Annual Chance Flood Hazard
- FEMA 0.2% Annual Chance Flood Hazard
- City Limits
- LOSSAN Rail Corridor
- Existing Pacific Surfliner Layover Facility
- Existing San Luis Obispo Amtrak Station
- San Luis Obispo Railroad Museum

Scale: 0 Feet 500

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5 Potential Impact on Water Quality

5.1 Construction (Temporary Impacts)

The total disturbed soil area for the Project is estimated to be 8.0 acres and includes areas for construction, access, and staging. Construction activities associated with the Project have the potential to degrade water quality through the exposure of surface runoff (primarily rainfall) to exposed soils, dust, and other debris, as well as from runoff from construction equipment. The use of oil, grease, and paints associated with construction activities can also degrade water quality if exposed to stormwater runoff.

Since the Project causes a disturbed soil area greater than 1.0 acre, the Project will implement Measure WQ-1 which will require the Project to comply with the NPDES Construction General Permit. Given that the Project is in a high receiving water risk area (red area), the Project will either be Risk Level 2 or 3. This includes preparation and implementation of a SWPPP. The SWPPP would identify temporary BMPs to address the potential temporary impacts to water quality. The temporary BMPs identified in the Project SWPPP may include, but not be limited to, measures such as temporary slope reinforcement and stabilization measures (e.g. hydraulic mulch [bonded fiber mix], temporary cover), linear sediment barriers (e.g. fiber rolls, gravel bag berms, silt fencing), construction site waste management (e.g. street sweeping, concrete washout), wind erosion control, non-stormwater management, material management BMPs, as well as temporary construction entrance and drainage inlet protection.

5.2 Operation Phase (Permanent Impacts)

The proposed Project would increase the impervious surface by 4.4 acres (190,000 square feet) to accommodate Project improvements. This includes 0.4 acres (19,000 square feet) of reconstructed impervious surface. The additional impervious surface areas have the potential to increase typical pollutants generated during the operation of a transportation facility (sediment/turbidity, nutrients, trash, and debris, bacteria and viruses, oxygen demanding substances, organic compounds, oil and grease, pesticides and metals).

The Project would implement post construction BMPs to meet the City of San Luis Obispo's stormwater treatment requirements for new and reconstructed impervious surface. If Low Impact Development-type BMPs are viable, then treatment will be based on water quality volume. If infiltration-type BMPs are not viable, the treatment will be based on water quality flow. Pollutants settle on the impervious surfaces such as oil, grease, brake dust, etc. and are mobilized during a precipitation event and conveyed in the storm runoff. To filter these pollutants from the runoff, Low Impact Development BMPs may be incorporated to treat and filter those pollutants from the runoff before it leaves the Project site thereby minimizing the conveyance and further impairment to the downstream water body. To address this impact, the Project will implement Measure WQ-2 which will require the Project to comply with the NPDES Phase II MS4 Permit.

Similarly, the Project would implement post construction BMPs to meet the IGP stormwater treatment requirements. This may include, but not be limited to, oil-water separators, water quality inlets, drain inlet inserts, etc. These features would apply to operation and maintenance of the Project. During operation and maintenance, it is normal for stormwater associated with industrial activities to discharge to waters of the U.S. During operation and maintenance, certain related activities and materials have the potential to mingle with precipitation which are conveyed in the storm runoff. To mitigate this

situation, certain housekeeping and structural BMPs may be incorporated into the project. By doing so, this will prevent the onsite runoff from discharging polluted runoff from leaving the project thereby minimizing the conveyance and further impairment to the downstream water body. To address this impact, the Project will implement Measure WQ-3 which will require the Project to comply with the NPDES Industrial General Permit.

5.2.1 Groundwater

General groundwater information is available for the regional area but groundwater elevation (or depth to groundwater below ground surface) information specific to the project area is not available from public domain sources. However, groundwater was not evident during field geotechnical investigations and those borings were as deep as 50 feet. Hence, it is assumed the historical high groundwater table is at least this deep. Due to the assumed depth of the high groundwater table, groundwater is not expected to adversely affect construction of the proposed Project and dewatering activities are not anticipated. However, fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture should be anticipated during and following the rainy seasons in the area (October 1st through May 1st) or periods of locally intense rainfall or storm water runoff.

5.2.2 Floodplains

According to the Federal Emergency Management Agency Flood Insurance Rate Map, the Project site is located within an area consistent with at least a 500-year floodplain associated with the San Luis Obispo Creek. Consequently, the Project is not anticipated to encroach upon any 100-year floodplains, including the San Luis Obispo Creek floodplain.

6 Avoidance and Minimization Measures

The following avoidance and minimization measures have been identified to minimize impacts to water resources and water quality:

- WQ-1** The LOSSAN Rail Corridor Agency will comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAS000002), as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ.
- WQ-2** The LOSSAN Rail Corridor Agency will comply with the provisions of the NPDES General Permit for Waste Discharge Requirements for Stormwater Discharges from Small MS4s (Order No. 2013-0001-DWQ, NPDES No. CAS000004), otherwise known as the Phase II Permit. Since the City of San Luis Obispo is a permittee of the permit, this includes following the City of San Luis Obispo requirements of the Phase II permit for post construction stormwater quality. This includes complying with the Central Coast Regional Water Quality Control Board Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution No. R3-2013-0032, July 12, 2013), and the City of San Luis Obispo Stormwater Control Plan for Post Construction Requirements.
- WQ-3** The LOSSAN Rail Corridor Agency will comply with the provisions of NPDES General Permit for Storm Water Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ, NPDES No. CAS000001).

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7 References

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