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LIST OF ABBREVIATIONS AND ACRONYMS

ABCSD	Avila Beach Community Services District
ACM	asbestos-containing material
AOC	area of concern
AST	aboveground storage tank
ATCAT	Avila Terminal Collaborative Assessment Team
bbl	barrels
bgs	below ground surface
BMP	Best Management Practices
BSA	Biological Survey Area
BTEX	benzene, toluene, ethyl benzene, and total xylenes
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CIWMB	California Integrated Waste Management Board
CL&D	Chevron Land and Development Company
CNPS	California Native Plant Society
CNDDB	California National Diversity Database
CUPA	Certified Unified Program Agency
DWR	Department of Water Resources
EC	Engineering Control
EHS	Environmental Health Services
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FS	Feasibility Study
FTP	File Transfer Protocol
gpd	gallons per day
IC	Institutional Control
IND	Industrial (Land Use Designation)
LBP	lead-based paint
LCM	lead-containing material
LCP	Local Coastal Program
LNAPL	light nonaqueous-phase liquid
LTM	Long Term Monitoring
mg/kg	milligram per kilogram
MTBE	methyl tert-butyl ether
naTPH	non-asphaltic total petroleum hydrocarbon

NHIS	non-hazardous hydrocarbon-impacted soil
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PAH	polynuclear aromatic hydrocarbon
PG&E	Pacific Gas and Electric Company
PTC	Permit to Construct
PTO	Permit to Operate
RAP	Remedial Action Plan
REC	Recreation (Land Use Designation)
RTP	Remediation Technology Panel
RWQCB	Regional Water Quality Control Board
SLOAPCD	San Luis Obispo County Air Pollution Control District
SMF	San Miguelito Fault
SMMWC	San Miguelito Mutual Water Company
SWPPP	Storm water Pollution Prevention Plan
TDS	total dissolved solids
TPH	total petroleum hydrocarbon
VOC	volatile organic compound
VTM	Vesting Tentative Map
WDR	Waste Discharge Requirement

1.0 INTRODUCTION

This project description describes the Avila Point Project (Project) proposed by Chevron Land and Development Company (Chevron or Applicant) in the Avila Beach area of San Luis Obispo County. The proposed Project includes remediation of the project site and entitlements for the future redevelopment of the site with visitor-serving resort uses.

The Project Site (Site), defined as shown on Figure 1-1, *Project Location Map*, is a 95-acre site located on the Pacific Ocean immediately east of the town of Avila Beach and approximately 0.5 mile west of the City of Pismo Beach. The Site is located in the Coastal Zone (see 1-2, *Regional Setting Map*), within a Local Coastal Program (LCP) administered by the County of San Luis Obispo (County). It is also within the Avila Beach Specific Plan boundary, the Urban Reserve Line, Avila Beach Community Services District (ABCSD), and Avila Sphere of Influence.

The Site is the location of the former Avila Terminal, an oil storage and distribution facility that ceased operation in 1997. As a result of the historical industrial activities, portions of the Site were heavily graded to accommodate buildings, tanks, mechanical equipment, utility lines, and roads. Many buildings and much of the infrastructure (pipelines, roads, etc.) were left in place after the facility shut down and some remain, including multiple bermed tank rings around depressions where tanks were previously located.

The Project consists of two physical components: remediation and redevelopment. Chevron proposes to obtain the necessary entitlements and permits to remediate the Site as appropriate for the intended end use and initiate fine grading and establish backbone infrastructure to facilitate subsequent development. A future developer will prepare the ultimate design, obtain permits and construct the resort structures and facilities on the Project Site.

- For the **Remediation Component,** Chevron proposes to remove historical terminal facilities and pipelines, remediate residual contamination from past operations, and regrade the Site to provide remediation cover and prepare it for redevelopment and public access.[1]

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[1] Chevron is currently engaged in active remediation in an area next to the coastal bluff, which is referred to as the "Cliff Area Remediation Project." This work is being conducted at the direction of the Central Coast Regional Water Quality Control Board (RWQCB) under Permit No. ZON2013-00416, issued for installation of the recovery system in the cliff area. Remediation in the cliff area will continue independent of the remediation proposed in this project description for the Site (Avila Point Project), and the recovery system is an existing condition for the purposes of this Project Description.

- For the **Redevelopment Component**, the County will amend applicable provisions of the San Luis Obispo County General Plan/ LCP and the Avila Beach Specific Plan to allow visitor-serving resort uses by revising the land use designation from Industrial to Recreation in an effort to set the stage for the future development as well as future permits and entitlements.

    - In preparation for redevelopment, Chevron proposes **Infrastructure Construction** to install backbone infrastructure including a master water, sewer, and drainage system, roads, parking, and general pad areas where future buildings are anticipated.

      As part of the infrastructure, Chevron proposes to construct a 0.6-mile Coastal Trail segment along the bluff edge, which will allow public accessibility to some of the most scenic ocean view portions of the Project Site. The Coastal Trail will link the town of Avila Beach to Cave Landing Road and the County's existing Shell Beach Bluff Trail, and provide access to the Project recreational amenities and resort services. This segment will complete a missing piece of the California Coastal Trail, providing public access to a portion of the coast where access has been restricted for over a century.

    - For the **Vertical Construction,** a future developer will redevelop the site for uses consistent with the revised land use designation, including lodging, commercial (restaurant, spa, resort retail) and open space. The redevelopment phase includes: construction of up to 320,200 square feet of resort accommodations and facilities; 8,000 square feet of spa facilities; 7,000 square feet of dining; 4,000 square feet of retail; and 11,500 square feet of meeting rooms.

As part of the redevelopment phase, recreational amenities will be constructed by the future developer, including an amphitheater and pedestrian and bike trails.

In the Scout House area, a meeting facility is proposed, either standalone (separate from the resort) or as part of the resort for use by resort guests or as rental spaces for use by the public. The Project also includes optional uses that could potentially replace the proposed meeting rooms use for the Scout House area: (1) office, (2) retail with meeting rooms, (3) multi-family residential or (4) desalination plant and wastewater treatment package plant.

The Project incorporates flexibility for the future developer to rearrange development components within the building envelope approved for the Project consistent with the development standards adopted in the amended Avila Beach Specific Plan, as long as they do not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects analyzed for the proposed Project. The future developer will apply for Minor Use Permit(s) for the vertical construction as outlined in the amended Avila Beach Specific Plan. If the future developer proposes changes to the Project beyond the scope evaluated in the EIR, further CEQA review of those changes may be required.

2.0 PROJECT INFORMATION

2.1 PROJECT APPLICANT

LAND OWNER
Union Oil Company of California
c/o Chevron Land and Development Company
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San Ramon, CA 94583-2324

APPLICANT/OWNER'S AGENT
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2.2 PROJECT DESCRIPTION ORGANIZATION

The first two sections of this Project Description address general information regarding the Project and existing Project Site setting. The third and fourth sections provide details about the Project features and components.

Section 1 – Introduction
Section 2 – Project Information
Section 3 – Project Site Background and History
Section 4 – Remediation and Abandonment
Section 5 – Entitlement and Redevelopment

2.3 NECESSARY APPROVALS

Chevron proposes to obtain the necessary entitlements to remediate and redevelop the Project Site and the permits to remediate the Site as appropriate for the intended end use, initiate fine grading, and establish backbone infrastructure to facilitate subsequent development. The ultimate design, permitting and construction for the structures and facilities will be completed as outlined in the amended Specific Plan by a future developer.

The County as the Lead Agency is responsible for conducting the environmental review for the project (see Figure 2-1, *Avila Point Approval Process*). Additionally, discretionary approvals to be considered by the County and the California Coastal Commission include, but may not be limited to, the following:

- Development Plan Permit to allow site abandonment and remediation work for the remediation phase.
- General Plan/LCP Amendment to change the land use designation for the Project Site from Industrial to Recreation to allow outdoor recreation and resort-oriented development.
- Specific Plan Amendment to allow site-specific design guidelines and development standards for a resort-oriented development.
- Vesting Tentative Map (VTM) to allow a 9-lot subdivision and the preliminary design of grading, roads, and infrastructure improvements associated with the future redevelopment.

The proposed General Plan/LCP and Avila Beach Specific Plan amendments will be submitted by the County to the California Coastal Commission for certification. Once certified by the Coastal Commission, the amendments will be returned to the County for final adoption. The County will consider any modifications by the Coastal Commission and, if it concurs with the modifications, will incorporate them into final amendments for adoption by the County.

The approving agency for the Project's remedial actions is the Central Coast Regional Water Quality Control Board (RWQCB). The remedial actions needed for the Project are described in the Remedial Action Plan (RAP) and the implementing actions included in this Project Description. For remediation, Chevron will submit the RAP to the RWQCB with a request for concurrence with the proposed remedial actions and authorization to implement under the Clean Water Act and Porter-Cologne Water Quality Control Act. The RWQCB would then indicate concurrence with the RAP upon certification of the Final EIR. In addition to RWQCB concurrence with the proposed remedial actions, the activities to implement the RAP will require a land use permit (Development Plan) from the County in reliance on the impact analysis in the Final EIR. If there is a material change to the intended final use of the Project Site, the remedial actions will be re-evaluated.

Future redevelopment will be guided by County and State documents, including but not limited to:

- County General Plan
    - County Framework for Planning, Coastal Zone
    - San Luis Bay Area Plan/ LCP
    - Avila Beach Specific Plan
- County Coastal Zone Land Use Ordinance (Title 23)
- County Real Property Division Ordinance (Title 21)
- California Coastal Act

In addition to the specific discretionary actions listed above, the future developer will apply for Minor Use Permit(s) as outlined in the amended Avila Beach Specific Plan. Ministerial permits and approvals may be or will be required, including, but not limited to, permits for grading, excavation, foundations, and buildings.

In conjunction with remediation activities, Chevron proposes to install backbone infrastructure and complete the roads and fine grading consistent with the VTM in order to prepare the Project Site for the future redevelopment. The VTM drawings are included in the application package in Section 10. The intent of the subdivision application would be to facilitate the redevelopment component and addresses the finish grading and backbone infrastructure to serve the project. Backbone infrastructure includes a master water, sewer, and drainage system as well as roads, parking, and general pad areas where future buildings are anticipated.

The ultimate design and construction of the structures and facilities on the Project Site will be completed by the future developer. The redevelopment component of the Project is further divided into phases to provide flexibility in market conditions at the time of implementation and sale. Refer to Section 5.10 for additional construction phasing details. Phased construction could occur concurrently in a short time frame or over a longer duration in any sequence. The future developer will design the final site plan in accordance with the amended Avila Beach Specific Plan design guidelines and development standards and process the requisite applications to obtain Minor Use Permit(s) and building permits from the County.

Other agencies will have jurisdiction over various aspects of the Project. A complete list of permits and approvals for the Avila Point Project is included below in Table 2-1*, Anticipated Federal, State, and Local Permits and Approvals*.

Agency Roles

The San Luis Obispo County Air Pollution Control District (SLOAPCD) is the agency responsible for issuance of a Authority to Construct (ATC) and a Permit to Operate (PTO), both of which may be required for the Project. As a responsible agency, the SLOAPCD will rely on information contained in this EIR as part of any ATC/PTO permitting process.

As noted above, the RWQCB is the approving agency for the Project's remedial actions. The RWQCB, as a responsible agency, will rely on information contained in this EIR in approving the proposed remedial actions.

Remediation and construction of redevelopment infrastructure will also require permits from the SLOAPCD, review of water and wastewater infrastructure from the purveyor, and various County permits (demolition, grading, building, encroachment, etc.). Table 2-1 provides a list of anticipated federal, state, and local permits and approvals needed to implement the Project.

Table 2-1: Anticipated Federal, State, and Local Permits and Approvals

Agency	Permit/Approval	Regulated Activity
Federal Agencies		
None		
State Agencies		
Regional Water Quality Control Board (RWQCB)	Approval of Remedial Action Plan	Remedial Action Plan activities
	Authorization under NPDES Storm Water Construction General Permit	Construction Activities that disturb more than 1 acre.
CA Coastal Commission	Certify Avila Beach Specific Plan /LCP amendments Appeal authority over any Coastal Development Permits	Amendments to Avila Beach Specific Plan /LCP
Local Agencies		
SLO County Planning and Building Department[1]	Discretionary Permits • General Plan/LCP amendment, Avila Beach Specific Plan amendment • Vesting Tentative Map • Development Plan for Remediation Activities • Minor Use Permit for future Resort	Land use, grading, demolition, trees, drainage, etc.
	Ministerial permits: • Final Tract Map • Demolition Permits • Grading Permit • Building Permits • Tree Removal Permit • Temporary Building Permits	Permits for physical construction, structures, and Site remediation
SLO County Air Pollution Control District (SLOAPCD)	• Authority to Construct/Permit to Operate, • Construction Activity Management Plan (CAMP) • Natural Occurring Asbestos (NOA) • National Emissions Standard for Hazardous Air Pollutants (NESHAP - Asbestos and Lead) notifications and plans • Portable Equipment Registration Program (PERP)[2]	Stationary (permanent or temporary) and portable equipment associated with construction and operations may require permits. Portable, non-self-propelled equipment with engines larger than 50 horsepower.
SLO County Public Works Department	Encroachment Permit	Work within public right-of-ways (if needed).
SLO County Environmental Health Services	• Monitoring well Construction/Destruction Permits. • CUPA	Approval and inspection of monitoring well construction and destruction. Review and enforcement of hazardous materials management plans.

1. CAL FIRE acts as fire department for County Planning and Building Dept. and will review ministerial permits.
2. PERP is a voluntary permit program that supersedes mandatory local air quality permits for most portable equipment types that require air quality permits.

2.4 PROJECT OBJECTIVES

The Project objectives provided by the Applicant for the Avila Point Project are as follows:

- Establish an economically feasible destination coastal resort that provides a mix of hotel and resort accommodations, recreational amenities, health facilities, restaurants, meeting rooms, and other related visitor-serving uses on the Avila Point (former Avila Terminal) site.

- Establish standards and guidelines that allow design flexibility while ensuring future development will complement the coastal setting.

- Provide a variety of hotel/resort accommodations that serves a wide range of coastal visitors and their needs, such as length of stay, size of units, and associated meeting and recreational facilities.

- Provide for a variety of public open space, including natural open space areas, trails, and amenities available for use by the general public within the Project.

- Provide for expanded public coastal access, with continuous horizontal access connecting the downtown Avila Beach to Cave Landing Road comprised of a bluff-top trail and scenic overlooks along the full length of the Project Site's coastal bluff.

- Design a destination coastal resort facility that is architecturally and visually compatible with the surrounding landscape.

- Provide for a project which, in its entirety, is financially feasible for the private sector to develop, operate, and maintain on a sustainable basis and for the benefit of Avila Beach, its residents and the surrounding community and San Luis Obispo County.

- Provide for the redevelopment of the former Avila Terminal (Tank Farm) site with visitor-serving uses that will attract new visitors to the area and provide economic benefits to the Avila Beach and County of San Luis Obispo.

- Restore and revitalize the Avila Point Site through remediation, restoration, and redevelopment to address past industrial impacts through adherence to regulatory requirements provided by the RWQCB and ensuring that human health is protected.

- Establish standards and guidelines that allow design flexibility while guiding future development that complements the coastal setting and Avila Beach's character, such as height, building form, parking, architectural features, landscape treatment, signage, lighting, and sustainability.

3.0 PROJECT SITE BACKGROUND AND SITE HISTORY

3.1 PROJECT LOCATION AND REGIONAL SETTING

Avila Beach is an unincorporated community within the County of San Luis Obispo. The town is located between the cities of San Luis Obispo and Pismo Beach, approximately 11 miles south and 7 miles northwest, respectively (see Figure 1-2). As shown in Figure 1-1, the Project Site is situated on approximately 95 acres adjacent to Avila Beach and approximately 1 mile west of California Highway 101.

The Project Site is bordered on the north by Avila Beach Drive, on the east by Cave Landing Road and an undeveloped hillside, on the south by the Pacific Ocean with approximately 4,000 feet of coastline, and on the west by the community of Avila Beach. North of Avila Beach Drive is a golf course, high-end single family residences, and a few small resorts.

3.2 BACKGROUND

The Project Site is a former oil storage and distribution facility, the Avila Terminal (Avila Tank Farm), located in an unincorporated portion of San Luis Obispo County adjacent to the town of Avila Beach (Figure 1-1). The Assessor Parcel Number for the Site is 076-181-062. The address of the Site is 1717 Cave Landing Road, Avila Beach, California. For the purposes of this Project Description, the Site or Project may be referred to as Avila Point when discussing the overall Project or redevelopment-specific activities, and Avila Terminal when discussing past industrial use or remediation/facilities abandonment-specific activities.

The Site is owned by Union Oil Company of California (Union Oil), which bought the property in 1906, and built the tank farm on the hills above the town in 1910 – 1911 to store oil piped in from the Santa Maria and San Joaquin Valleys for transfer to ocean tankers and operated it through 1997. From the tank farm, pipelines ran through town and to the end of a pier (currently the location of the "Cal Poly Pier") where tankers loaded oil for distribution. The Site is located along the eastern side and topographically uphill from the downtown area of Avila Beach (see Figure 3-1, *Project Area Aerial*).

Most of the infrastructure was removed in 1998, but some terminal features remain. Third party facilities are also currently located on the Site, including two water tanks owned and operated by the ABCSD, pipelines owned by Phillips 66 and Sempra Energy (formally SoCal Gas, Southern Counties Gas Company of California and Santa Maria Gas Company), and Pacific Gas and Electric Company (PG&E) power transmission poles and lines.

Avila Beach developed as a recreation venue for beachgoers as well as a port. The restaurants and shops along Front Street cater to a mix of college students, locals, and vacationers. Avila Beach is also home to residents - some year-round and others seasonal.

Development in Avila Beach was effectively halted by a 1977 water service moratorium. Commercial buildings that might have been replaced during this period were kept in service with minimal expenditures for maintenance and improvements. The moratorium was lifted in 1994 and petroleum contamination was encountered while digging the first new building foundation on Front Street. Further investigation revealed that the soils under Front Street, the beach, and commercial buildings were contaminated with petroleum that had leaked from the underground pipelines that connected the tank farm to the pier.

Union Oil commenced studies to determine methods for accomplishing a cleanup. Excavation was chosen as the quickest way to remove the contaminants, but this meant demolishing the old commercial district buildings and infrastructure. Early in the process, a "Front Street Enhancement Committee" was formed to consider the possibility of rebuilding the streetscape with wider sidewalks, landscaping, and amenities for improving the pedestrian environment. The County began an intensive public hearing process to prepare a Specific Plan. Town Hall meetings were conducted to ensure that local residents participated in developing a community vision and creating specific guidelines for new development.

The resulting 2001 Avila Beach Specific Plan established guidelines to rebuild the commercial district in a manner that improved the community's image while honoring its existing ambiance. It included design standards for new buildings that provide flexibility while preserving or replicating historical features.

While past studies and actions have focused on the town, beach, and pier areas of Avila Beach, it was also known that contamination was present at the Terminal (Tank Farm) and that a future remediation and redevelopment project would be undertaken for the Site. The 2001 Avila Beach Specific Plan also outlined recommendations and requirements for the future redevelopment of the Site. Recommendations included suggestions such as redevelopment as a conference center with lodging uses, trails, and open space (see Avila Beach Specific Plan, pages 31 and 32). The Avila Beach Specific Plan stipulated that future use of the Site will be considered during the remediation review process and subsequent amendment to the Specific Plan would be necessary[2].

3.3 SITE INDUSTRIAL HISTORY

By 1910, Union Oil had developed the Site as a storage and distribution facility for crude oil and refined petroleum products. In the 1920s and 1930s, Avila was the biggest oil shipping port, by

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[2] 2001 Avila Beach Specific Plan, Pg. 156. Future use of the Site will be considered during the remediation review process and a subsequent amendment to the Avila Beach Specific Plan. The amendment will include a request to amend the Specific Plan to change the land use designation from Industrial (IND) to a new category which would enable development similar in physical scale and functional characteristics to that described in the Specific Plan.

volume, anywhere in the world (see Figure 3-2, *Site History*). During WWII, Union Oil's Avila Beach operation supplied the U.S. Pacific Naval Fleet with fuel.

The Avila Terminal was used for more than 90 years to partially refine and store crude oil and to store and distribute petroleum products such as gasoline and diesel. The Terminal's primary function was to accumulate crude oil from the Santa Maria and San Joaquin oil fields for shipment to refineries near San Francisco and Los Angeles. Refined products were also stored and distributed to local retail outlets.

Crude oil from inland oil fields was piped to the Site, stored in aboveground storage tanks (ASTs), and then pumped to ships moored at nearby Port San Luis and, later, at Union Oil's own pier for transport to refineries in the Los Angeles and San Francisco areas. Ships transporting crude oil away from the Site typically arrived loaded with refined petroleum products, which were transferred to other ASTs at the Site and then distributed by truck to retail locations throughout the Central Coast region.

Refined and unrefined petroleum products were pumped to and from the Site via the Northern, Eastern, and Front Street pipeline corridors, the latter of which ran beneath Front Street in Avila Beach to the piers. In addition to ASTs, a pump house and a truck-loading rack, the Site also had a laboratory, a small refinery, and other infrastructure. The former refinery reportedly used a rudimentary heat distillation process to partially refine crude oil into intermediate products that were shipped elsewhere for additional refining. The partial refinement of crude oil was a minor operation that ended shortly after World War II.

The Terminal was formally decommissioned in 1997. Union Oil sold the Northern and Eastern pipeline corridors to Tosco Corporation (now, through merger, Phillips 66 Company) but retained ownership of the land. Phillips 66 is not currently using the pipelines.

In 1998 and 1999, Union Oil removed the ASTs and much of the aboveground infrastructure at the Site, and in 2004 it drained and cleaned the known subsurface pipelines. A few surface structures, including the pump house, the laboratory, a fire-water AST, and most of the subsurface infrastructure, such as sumps and pipelines, remain in place. An aerial photo of the Site, showing the locations of industrial operations and the remaining infrastructure, is presented in Figure 3-1.

Remediation in the town of Avila Beach, including the beach, Front Street, and adjacent commercial properties, has been conducted and was deemed complete by the RWQCB and the County in 2002.

3.3.1 Industrial Operations and Remediation Planning

In the course of the Avila Terminal's over 90 years of industrial use, petroleum hydrocarbons were released to soil and groundwater. As described in the Site Conceptual Model (Avocet 2012), impacts are limited to the former operational areas of the Site. These areas include the former pump house and loading rack, the former refinery area, along the pipelines and beneath

the former tanks. The impacts to soil and groundwater are predominately releases of petroleum. Although the majority of petroleum releases onsite were crude oil, some areas of the Site were affected by the release of partially and fully refined petroleum products.

In 1999, Union Oil elected to pursue a voluntary cleanup of the Avila Terminal and has participated in two collaborative processes with the RWQCB to ensure a common understanding of site conditions and risks to human health and ecological resources.

Remediation Technology Panel (RTP)

In 1999, the RWQCB and Union Oil formed the Remediation Technology Panel (RTP). Its purpose was to provide expert third party review of existing reports and recommend further work to understand the nature, extent, and potential mobility of Site contamination. The RTP's efforts culminated in a report published in 2004 (RTP 2004), with the conclusion providing the basis for subsequent remediation planning.

Since publication of the RTP report, Chevron has monitored Site groundwater in accordance with the plan approved by the RWQCB. At the request of the RWQCB, the conclusions of the RTP were evaluated against this additional data, which validated the conclusions of the RTP.

Avila Tank Farm Collaborative Assessment Team (ATCAT)

In 2004, a group consisting of Union Oil and agency representatives was formed to evaluate potential human health and ecological risks at the Site. The agency group, called the Avila Tank Farm Collaborative Assessment Team (ATCAT), included the RWQCB as lead oversight agency, the California Department of Fish and Wildlife (CDFW), County Environmental Health Service (EHS), County Planning and Building Department, and the SLOAPCD.

Site conditions related to the past industrial operations were evaluated by technical subcommittees of the ATCAT. The following key documents, which provide the basis of the remedial actions incorporated into the proposed Project, were prepared and accepted by the ATCAT:

- Predictive Ecological Risk Assessment (BBL 2005)
- Human Health Risk Assessment (McDaniel Lambert 2014)
- Site Conceptual Model (Avocet 2013)
- Pre-Feasibility Study (ERM 2014)

Building on these documents, a Remedy Selection Report was prepared to identify the preferred remediation alternatives. A RAP consistent with the Project will also be prepared and submitted to the RWQCB for concurrence.

Total petroleum hydrocarbons (TPH) at the Site were evaluated in two categories, asphaltic and non-asphaltic. Asphaltic TPH does not pose a risk to human or ecological receptors, as it is inert

and cannot be absorbed by living organisms. Non-asphaltic TPH (naTPH) was determined to present a potential risk to human and ecological receptors and will be addressed in remedial actions. The *Remedy Selection Report* (Avocet 2015) established 1,000 milligrams per kilogram (mg/kg) as a remedial action objective for naTPH. Therefore, discussions of naTPH are concerned with concentrations greater than 1,000 mg/kg.

Other contaminants that were of concern in the *Remedy Selection Report* include metals (occurring in both soil and dissolved in groundwater), methane, and volatile organic compounds (VOCs) that occur in soil, soil gas, and groundwater. Polynuclear aromatic hydrocarbons (PAHs) are also found at the Site, but are generally coincident with the naTPH.

NaTPH in Soil and Water

Figure 3-3, *Distribution of naTPH in Soil and Bedrock*, shows the distribution of NaTPH (C_4-C_{40}) in soil and bedrock. NaTPH greater than 1,000 mg/kg in soil is most prevalent in the north-south colluvium-filled valleys, with the highest concentrations (greater than 10,000 mg/kg) typically associated with the numerous pipelines in these valleys. The majority of soil containing naTPH concentrations greater than 1,000 mg/kg occurs in the upper 40 to 50 feet of the Site, with much of that in the upper 10 to 20 feet. In some areas, other contaminants are coincident with the naTPH. These can include benzene, toluene, ethyl benzene, and xylenes (collectively BTEX); and PAHs. Less frequently they can include gasoline components and additives, such as organic lead, methyl tert-butyl ether (MTBE), 1,2-dichloroethane, and 1,2,4- and 1,2,5-trimethylbenzene.

NaTPH is found as Light Nonaqueous-Phase Liquid (LNAPL) in certain areas of the Site. As many as 43 monitoring wells at the Site have historically contained LNAPL and 18 of those wells routinely contain a measurable (>0.01 feet) thickness. Shown in Figure 3-4, *Wells with Measurable LNAPL*, the locations of these wells indicate that the presence of LNAPL is closely associated with the pump house and loading rack area, the adjoining area to the southwest, and locally beneath onsite distribution pipelines.

Metals in Near-Surface Soil and Groundwater

Refractory glass was a residue that built up in the oil-fired boilers of the refinery. When the boilers were cleaned, the residue was placed on the ground and is now located primarily down the slope to the north of the former refinery. The refractory glass is found in a variety of particle sizes, most if not all of which are generally too large and heavy to be dispersed by wind or rain, and contains elevated concentrations of lead and other metals (copper, nickel, vanadium, and zinc) that are encapsulated and insoluble in fresh water.

Lead attributed to lead-based paint debris is located within nine of the former tank rings. Lead impacts to soil are limited to the upper 2 to 3 feet in the vicinity of the nine tank rings.

Naturally occurring metals unrelated to historical operations are present in groundwater beneath the Site at locally elevated concentrations. In particular, the Pismo and Obispo

formations were deposited in a marine environment that provides a ready source of soluble minerals under the correct geochemical conditions and results in the elevated total dissolved solids (TDS) concentrations observed in groundwater samples.

NaTPH and VOCs Dissolved in Groundwater

A majority of dissolved-phase naTPH is associated with mid- to high-molecular-weight petroleum hydrocarbons (C_{10}-C_{40}), which occur in groundwater around the margin of the area where LNAPL is present. The northern, eastern, and western limits of dissolved-phase naTPH impacts to groundwater are well defined since sentinel groundwater monitoring wells in those directions have never contained significant concentrations of constituents attributable to historical Site operations. When detected in sentinel groundwater monitoring wells, the dissolved-phase naTPH concentrations have not followed any discernible trends over time. Benzene and fuel oxygenates are also locally present in groundwater.

VOCs and Methane in Soil Gas

VOCs and methane are present in soil gas in areas of the Site. The VOCs include fuel-related VOCs (BTEX and fuel additives), fire extinguishing agent VOCs (bromodichloromethane, chloroform, and carbon tetrachloride), and others such as tetrachloroethylene and methylene chloride. The survey data show that VOC distribution at 5 and 15 feet below ground surface (bgs) is similar, although the concentrations are typically about an order of magnitude greater at 15 feet bgs, probably due to atmospheric mixing and, to a lesser extent, degradation. The most prevalent VOCs detected are fuel-related (hexane and cyclohexane), with lesser amounts of acetone, heptane, tert-butyl alcohol, benzene, 2,2,4-trimethylpentane, 2-butanone, and chloroform.

In shallow soil, methane concentrations greater than 2.5 percent (half of the lower explosive limit) up to 29 percent have been reported south of the former refinery extending south of the loading rack. The distribution of methane at concentrations exceeding 2.5 percent is greater in deeper soil, extending south from the former refinery area to the loading rack and southeast to the former cliff tank locations.

Third Party Facilities

Phillips 66 owns pipelines within an easement that extends from Avila Beach Drive to Cave Landing Road. Chevron has no control over the activities associated with these pipelines. In 2014, Phillips 66 purged and cleaned one pipeline heading east from the Site to the local and Santa Maria area oil fields. The remaining two pipelines heading east from the site were not purged. In early 2015, Phillips 66 purged, cleaned, and packed their three pipelines running north toward San Luis Obispo with inert gas. Recent discussions with Phillips 66 indicate that they intend to cut and seal the lines at the Site property boundary and abandon them in place as early as 2015.

Sempra Energy (formally SoCal Gas, Southern Counties Gas Company of California and Santa Maria Gas Company) owns a pipeline within an easement that extends from Avila Beach Drive

to Cave Landing Road. Chevron has no control over the activities associated with this pipeline. The line has been idled for a number of years and Sempra Energy representatives have indicated they will assess the line to determine the appropriate abandonment method. It is anticipated that they will remove above ground facilities where feasible and abandon the below grade line in place.

Third party pipelines are shown on Figure 4-3, *Historical Pipelines*.

Scout House Area

The northwest corner of the Site currently has a 3,000 square foot building, picnic area, unimproved parking area and open space. This facility was previously used for meetings and an emergency response center when the Terminal was active. It is referred to as the "Scout House" as it was used by various Scouting groups on weekends. The Scout House area is addressed in Section 5.0.

4.0 REMEDIATION AND ABANDONMENT

The remediation portion of the Project addresses Site conditions related to the former operations that pose potential risks to human or ecological receptors or are subject to regulation. Proposed actions include a variety of activities appropriate to a specific condition, including excavation/surface removal, engineered caps, placing cover, institutional and engineering controls, and long-term monitoring. Closure activities include abandonment or removal of existing facilities and remedial actions (see Section 4.4 for more details).

Residual infrastructure will be removed during facility abandonment, as shown in Figure 4-1, *Avila Terminal Current Site Plan*. In addition to the features visible at the surface, there are numerous subsurface pipelines, foundations and other operational components related to the previous industrial operations (Figures 4-2a, *Historical Facilities*, 4-2b *Utilities and Service Systems,* 4-2c *Views of Site*, 4-2d *Existing Drainage*, and 4-3) on the Site that may have been partially covered when that operation was no longer supported at the Terminal.

The following sections describe in detail the Site closure and remediation activities. Construction equipment is not specifically described in each section because typical construction equipment, such as backhoes, excavators, scrapers, loaders, concrete crushers, and on-road and off-road trucks will be used. However, Tables 4-1 through 4-7A in this project description identify the maximum amount of construction equipment that could be used during remediation activities at the Site to conservatively evaluate the potential environmental impacts of Project implementation.

4.1 MOBILIZATION AND SUPPORT FACILITIES

Site preparation areas and support facilities will be provided for the facilities abandonment and proposed remedial activities. Temporary construction of support facilities and infrastructure will include equipment and material staging areas, stockpile areas, job shacks, and temporary roads. Details regarding the support facilities needed for abandonment/removal and for remediation are discussed in each section below.

4.2 SITE ACCESS AND OFFSITE TRANSPORTATION

4.2.1 Site Access

The Cave Landing Road gate will be used as the primary entrance to the Site, as shown in Figure 4-4, *Support Facilities, Staging Areas, and Site Access*. Personnel vehicles and trucks will use the Cave Landing entrance for Site access. The Front Street gate will be used primarily for emergency and fire-fighting access and only as necessary for construction personnel and equipment.

4.2.2 Offsite Hauling of Material

It is anticipated that the majority of hydrocarbon-affected soils transported offsite will be disposed of at either the Non-hazardous Hydrocarbon-Impacted Soil (NHIS) facility at the City of Santa Maria Landfill or the Cold Canyon Landfill in San Luis Obispo County.

Use of NHIS by the Santa Maria Landfill as cover material is consistent with the requirements included in Title 27 of the California Code of Regulations and has been approved by the California Integrated Waste Management Board (CIWMB) and the RWQCB. NHIS material includes, but is not limited to, soils from oil field sumps, tank farms, pipeline leaks, or petroleum product spills. The Santa Maria Landfill has an NHIS program addressing the types and monitoring of the NHIS received at the landfill that the Project will comply with.

The Cold Canyon Landfill is currently processing a Waste Discharge Requirement (WDR) renewal, which is scheduled to be heard at the July 30 – 31 Board meeting. The revised WDRs will allow receipt of NHIS if the Waste Acceptance Plan is approved. Once the RWQCB has issued the new WDRs with an NHIS Program and approved the Waste Acceptance Plan, Chevron will complete its process for approving the Landfill as a receiving facility and may decide to use the facility in addition to or instead of the Santa Maria Landfill. Hauling to the Cold Canyon Landfill is included in the Project Description for CEQA evaluation with the anticipation that the necessary approvals will be received.

The proposed truck route for transportation from the Project Site to the Santa Maria Landfill, shown in Figure 4-5, *Proposed Truck Routes to Santa Maria Landfill*, is as follows:

- Northbound on Cave Landing Road;
- North then eastbound on Avila Beach Drive to the Highway 101 on-ramp;
- Southbound Highway 101, trucks will exit at Betteravia Road in Santa Maria, travel east on Betteravia Road to Philbric Road, then north on Philbric Road to the City of Santa Maria Landfill entrance. The one-way distance for this proposed route is approximately 32 miles.
- Alternatively, trucks will exit at Main Street in Santa Maria, travel east on East Main Street to the City of Santa Maria Landfill entrance. The one-way distance for this proposed route is approximately 29 miles.

The proposed highway route to Cold Canyon Landfill is shown in Figure 4-6, *Proposed Truck Routes to Cold Canyon Landfill*, and will be as follows:

- Northbound on Cave Landing Road;
- North then eastbound on Avila Beach Drive to the Highway 101 on-ramp;
- Southbound Highway 101, trucks will exit at the Hinds Avenue/Price Canyon Road exit, travel north on Price Canyon Road, southeast on CA-227S to the landfill entrance. The one-way distance for this proposed route is approximately 13 miles.
- Alternatively, from Avila Beach Drive, the trucks will go northbound on Highway 101, exit at Higuera Street, turn right onto Tank Farm Road, turn right on CA-227S to the

landfill entrance. The one-way distance for this proposed route is approximately 15 miles.

The route will be the same in reverse for inbound trucks. Another alternative will be to route the trucks in a loop, using the southbound Highway 101 route for fully loaded trucks to the landfill and using the Tank Farm Road route for the empty trucks driving to the Site.

The material to be transported will be tested to ensure it meets the landfill's criteria. Material that does not meet the specifications will be separated and handled appropriately. Soil that does not meet the landfill's criteria will be sent to another appropriately licensed facility, such as the Clean Harbor Class I disposal facility in Buttonwillow, California or the Chemical Waste Management Class I disposal facility in Kettleman Hills, California. Lead-impacted soil and non-hazardous water generated from pipeline cleaning activities may need to be sent to one of these facilities.

The truck route to the Buttonwillow facility is shown in Figure 4-7, *Proposed Truck Route to Buttonwillow Facility*, and will include the following:

- Northbound on Cave Landing Road;
- North then eastbound on Avila Beach drive to the Highway 101 on-ramp;
- Highway 101 northbound; East on Highway 46; South on Highway 33; and,
- East on Lokern Road to the landfill entrance. The one-way distance for this proposed route is approximately 113 miles.

The designated highway route to Kettleman Hills Landfill is shown in Figure 4-8, *Proposed Truck Route to Kettleman Hills Landfill*, and will be as follows:

- Northbound on Cave Landing Road;
- North then eastbound on Avila Beach drive to the Highway 101 on-ramp;
- Highway 101 northbound;
- East on Highway 46; and,
- Northeast on Highway 41 to the landfill entrance. The one-way distance for this proposed route is approximately 90 miles.

4.3 FACILITIES ABANDONMENT/REMOVAL

Abandonment/removal of existing facilities is listed below, shown in Figure 4-9, *Infrastructure Demolition and Abandonment Plan*, and described in detail in the following sections.

- Construct support facilities;
- Remove former operations infrastructure;
  - Refinery area
  - Pump house/loading rack area
  - Miscellaneous buildings and structures
  - Tanks and associated pipelines
- Remove/abandon petroleum pipelines;

- Abandon monitoring wells; and
- Remove existing utilities and third party facilities.

4.3.1 Construct Support Facilities

Temporary construction support facilities and infrastructure may include equipment and material staging areas, job shacks, temporary stockpile areas, and concrete crushing operation areas.

Figure 4-4 provides locations for conceptual staging, stockpile, and support facility areas. Locations will be within the Site and on previously disturbed areas. The main equipment and job shacks staging area will be located within two bermed areas along the central portion of the Site that will be accessed from Cave Landing Road. These areas will be cleared and roughly graded prior to mobilizing the job shacks, equipment, and materials. Electricity to the staging areas will be obtained from the existing live PG&E power poles.

The staging, stockpile, and material processing areas will be located within previously disturbed bermed areas associated with former tanks pads.

The existing Chevron fire water tanks shown in Figure 4-4 will be used for storage of fire water and water required for construction activities. Water will be obtained from ABCSD. It is estimated that approximately 30,000 gallons per day (gpd) of water will be required for dust control and support facilities use during abandonment and removal construction activities (Table 4-1, *Remediation Summary of Estimated Water Usage*). The contractor will provide temporary sanitary facilities at needed locations.

4.3.2 Remove Former Operations Infrastructure

The aboveground and most of the subsurface infrastructure established for the former terminal will be removed. The extent of demolition, illustrated in Figure 4-9, includes the buildings and associated foundations, exposed and accessible surface features (e.g., pipe manifolds equipment pads, electrical panels), subsurface foundations and vaults, and asphalt in areas to be graded. The oil/water separator in the vicinity of the lower drainage basin as well as piping in this area and a possible septic tank in the vicinity of the former pump house (both still in place, but no longer plumbed into the system) will also be removed.

Infrastructure with the potential to have asbestos- or lead-containing materials (ACM and LCM, respectively) will be surveyed and abatement conducted prior to or concurrent with demolition. After abating asbestos and lead-based paint (LBP), aboveground and exposed infrastructure throughout the Site will be removed. LCM and ACM will be transported offsite for disposal at an appropriate facility. Metal materials will be salvaged if practical. To the extent feasible, concrete debris will be crushed and recycled. However, a portion of the concrete may not be suitable for reuse and will need to be hauled offsite to a disposal facility.

It is anticipated that excavation will be conducted over or next to subsurface facilities to expose them for removal. Impacted soils encountered during facility abandonment will be handled as described in the sections below describing pipeline removal and pump house excavation.

Estimated disposal quantities are listed in Table 4-2, *Remediation Summary of Disposal Quantities*, and associated truck trips are summarized in Table 4-3, *Remediation Summary of Offsite Truck Trips*. For CEQA evaluation purposes, appropriate contingency factors have been applied to the different quantities to ensure a conservative estimate of impacts. Table 4-4, *Remediation Preliminary Project Schedule and Associated Vehicle Trips*, provides a preliminary construction schedule. Tables 4-5, *Remediation Summary of Estimated Vehicle Trips, and 4-6, Remediation Summary of Earthwork Quantities*, summarize vehicle trips associated with the Project and estimated earthwork quantities. Table 4-7, *Remediation Summary of Equipment Usage*, lists the major pieces of equipment that will be used during the different activities.

A list of structures or infrastructure to be removed in specific areas is provided below.

Refinery area

- Warehouse structure
- Foundations related to the former refinery

Pump house/loading rack area

- Former pump house building
- Former laboratory building
- Boilers, heaters, pumps, and other supporting infrastructure
- Foundations associated with former loading rack, pump house, laboratory, fuel pumps, and boilers
- Aboveground pipelines, manifolds, and overhead pipe racks in the former pump house

Miscellaneous buildings and structures

- Scout House and two outbuildings, and their associated foundations
- Former fire pump house structure and foundation
- Septic system in the vicinity of the former pump house building
- Oil/water separator in the vicinity of the lower drainage basin
- Other Site-wide foundations and walls

Tanks and associated pipelines

- Chevron's three fire water tanks and foundations

The three steel fire water tanks have capacities of 5,000, 3,000 and 2,300 barrels (bbl). The two larger tanks are bolted and the smaller one is welded. The 3,000 bbl tank, which is currently active and used to store water for fire-fighting and onsite use, will be temporarily retained for fire-fighting and construction water storage until it needs to be

removed to facilitate grading. The other two tanks are inactive and will be removed during the abandonment effort.

4.3.3 Remove/Abandon Petroleum Pipelines

Existing petroleum pipelines to be removed or abandoned are shown in Figure 4-10, *Petroleum Pipeline Removal/Abandonment*. These include pipelines that were shown on historical drawings, pipelines identified during a cleaning effort in 2004 and pipelines (with unknown contents) that were interpreted using geophysical techniques (Geovison, 2004). While these figures are reasonable approximations of their locations, final removal and abandonment will require field investigation at the time of removal.

In 2004, a large portion of the pipelines shown in Figure 4-10 were located, drained of fluid, cleaned, flushed, and sealed to the extent possible. The documentation of this work was thorough and will be used as a starting point for removal and abandonment.

Prior to the pipeline abandonment and removal work, a comprehensive geophysical survey will be conducted to locate the lines and characterize their contents. The pipelines will be handled as follows:

- Inactive pipelines that are encountered during Site grading will be removed unless they have potential for future use.
- Inactive product pipelines outside of proposed remedial excavations and greater than 4 inches in diameter, whether aboveground or buried, will be removed, unless steep slopes, trees, cultural resources, etc. will be destabilized or destroyed by removal. In this case, the pipeline will be cleaned, filled with grout, and left in place. Product pipelines that were not cleaned in 2004 will be located, cleaned, and flushed prior to removal.
- Product pipelines outside of proposed remedial excavations that are equal to or smaller than 4 inches in diameter will be cleaned (if not previously cleaned), capped, and abandoned in place.
- Non-product pipelines outside of proposed remedial excavations will be located, cut, capped, and abandoned in place.

To be conservative, the Project procedures and estimates (pipeline quantities and truck trips) assume that additional cleaning and flushing will be required and that more pipelines will be encountered with foundation removal and Site grading. In general, the pipelines will be flushed and, if necessary, pigged to remove residual hydrocarbon and vapors prior to abandonment.

Pipeline cleaning and flushing will be conducted using a procedure similar to the one used in 2004. The general cleaning procedure will be to flush the pipeline with water from higher to lower elevations and drain them from a common low point. Lines will be flushed until the drained water is clear of any visible petroleum residue or sheen. The water will be stored in a temporary tank and reused after passing through an oil/water separator, filter, and liquid-

phase activated carbon. These procedures may be modified, as needed, based upon field conditions or improved methods.

The residual oil collected from the cleaning and flushing operation will be trucked offsite for disposal at either Clean Harbor's Class I disposal facility in Buttonwillow, California, the Waste Management Class I disposal facility in Kettleman Hills, California, or another approved facility. For CEQA evaluation purposes it is assumed that residual disposal will result in an average of one truck trip per week. The recirculated water used for pipeline cleaning will also be eventually trucked offsite for disposal at either Clean Harbor's Class I disposal facility in Buttonwillow, California or the Waste Management Class I disposal facility in Kettleman Hills, California, or another approved facility.

Pipelines that are excavated and removed will be temporarily stockpiled and processed in the material processing areas. The pipeline scrap metal will be cut during demolition and transported offsite for recycling. Potential recycling facilities include the R&R facility in Arroyo Grande (approximate one-way route distance of 17 miles), two metal recycling yards in Santa Maria (approximate one-way route distance of 31 miles), or another approved recycling facility.

Pipelines that are scheduled for abandonment will be grouted with a cement slurry to prevent any future subsidence from pipe wall collapse. A portable pump will pump grout into the pipeline segments. Following grouting, the pipeline segment ends will be backfilled with soil and the soil compacted.

The pipelines running beneath Front Street from the terminal gate to the wharf were removed in 2000 during the Avila Beach Remediation Project except for a section just outside the terminal gate. This remaining section will be removed or abandoned in place. The onsite pipelines under the access road from the Front Street gate to the loading rack/pump house area will be removed.

Soil will need to be excavated to expose the pipelines in some areas, as shown in Figure 4-10. It is assumed that the pipelines are within a nominal depth of 4 feet below existing grade. During excavation, an excavator, loader, and a truck will be used to handle, segregate, and process the soil at the time of excavation. It is estimated that most of the soil will be suitable for onsite reuse. Soil exceeding the 1,000 mg/kg threshold established with the RWQCB for reuse will be trucked offsite for disposal at the Santa Maria Landfill or another approved facility. As needed, soil unsuitable for reuse will be stockpiled onsite prior to transporting it offsite. Soil in the pipeline corridors will be excavated as needed to expose the pipelines for removal or to ensure a minimum 4 feet of cover over naTPH soils exceeding 1,000 mg/kg (see Site grading discussion, Section 4.4.4).

4.3.4 Abandon Monitoring Wells

A network of groundwater monitoring wells is used at the Site to assess the hydrogeology and distribution of petroleum hydrocarbons in groundwater pursuant to a RWQCB-approved Monitoring and Reporting Plan.

An estimated 48 wells within the remediation and Site grading area, or those determined by Chevron and the RWQCB to not be needed for post-remediation monitoring, will be abandoned prior to or concurrent with the grading portion of the Project (see Figure 4-11, *Monitoring Well Locations*). Well destruction will be performed in accordance with the Department of Water Resources (DWR) Bulletin No. 74-81 and Supplement No. 74-90, and County permit regulations for well destruction.

Anticipated well destruction procedures include using mechanical equipment (backhoe and/or jackhammer) to remove surface monuments. A drill rig will be used to destroy the wells by over-drilling or pressure grouting. The drill hole (over-drill method) or well casing (pressure grout method) will be backfilled with neat cement or bentonite grout. The upper 5 feet of the drill hole will be backfilled with soil. The upper 5 feet of the pressure grouted well casing will be over-drilled to 5 feet and will be backfilled with soil or sand. Depending on the method of well abandonment, the drill rig could be used for a duration of up to 50 days, which may occur over several short periods of time. Soil cuttings generated from over-drilling will be trucked offsite for disposal at the Santa Maria Landfill, Cold Canyon Landfill, or another approved facility.

4.3.5 Remove Existing Utilities and Third Party Facilities

Existing utilities established for the Terminal that are no longer needed or the remaining infrastructure of historical utilities that have been partially abandoned will be removed or fully abandoned, as appropriate. Historical utilities include water and fire-fighting pipelines, gas mains, electrical conduits, power poles, and steam and condensate pipelines.

The subsurface pipelines will be identified and removed using the procedure described in the section on Petroleum Pipeline Abandonment/Removal. The utility pipelines will not be cleaned and flushed prior to removal.

Power poles belonging to PG&E will be identified, protected in place, and retained for future use. PG&E uses these poles for power supply to the town of Avila Beach. Portions of the existing overhead electrical service and poles that belong to Chevron and are no longer needed will be removed (see Figure 4-9). The existing power poles may have potentially been treated with creosote. Necessary precautions and health and safety measures will be implemented during their removal and disposal. The poles will be trucked offsite for disposal at either the Santa Maria Landfill, Cold Canyon Landfill, or another approved facility. Existing fire water/water lines that are no longer needed will also be abandoned or removed concurrent with the petroleum pipeline removal.

Phillips 66 owns pipelines within an easement that extends from Avila Beach Drive to Cave Landing Road (see Figure 4-10). Phillips 66 has pigged, purged, and packed lines leading to and from the Site with inert gas. Recent discussions with Phillips 66 indicate that they plan on reentering these lines to cut and seal the lines at the Site property boundary and abandon them in place as early as 2015. Subsequently, Chevron or Phillips 66 will remove or grout the lines as

described below. For the purposes of conservative CEQA evaluation, this Project Description assumes that Chevron will conduct the Phillips 66 pipeline removal and grouting work as shown in Figure 4-10; the estimates for this work are included in the quantity tables, equipment requirements, etc.

Chevron will remove the portion of the Phillips 66 pipelines in the former operations area with associated valve boxes and other facilities as shown on Figure 4-10. Chevron also plans to cut and grout the pipelines on the steep slopes within the oak woodlands to the north. The removed pipeline will be transported to a recycling facility and the vaults and other debris will be handled as previously described.

A former gas oil main is also located within the Phillips 66 north-south pipeline corridor. This line was also owned by Phillips 66 and was later used as a natural gas line. This Project Description assumes that Chevron will remove the east-west segment of this gas oil pipeline and handle it as described in Section 4.3.3, and that the north-south segment of this gas oil pipeline will be cut and grouted.

ABCSD owns two water tanks located within easements on the east side of the Site. ABCSD also has easements for the water line connection at 1st Street and for access to the facilities from the Front Street gate. Site activities and grading will work around these facilities until they are relocated by or in conjunction with ABCSD.

4.4 REMEDIATION

Actions required for remediation and post-remediation activities are described below in the following categories:

- Support facilities
- Monitoring wells
- Remedial actions
- Site Grading
- Engineering and institutional controls
- Post-remediation hydrology

4.4.1 Support Facilities

Temporary construction support facilities and infrastructure for the remedial activities will be the same as those described in Section 4.3.1 for the abandonment and removal of existing facilities. The support facilities and infrastructure will include equipment and material staging areas, job shacks, and stockpile areas as shown in Figure 4-4.

The existing active Chevron fire water tank will continue to be used for storage of fire water and water required during construction activities. Water will be obtained from the ABCSD water system. It is estimated that up to 65,000 gpd of water could be required for dust control

during construction activities associated with remediation (see Table 4-1). The contractor will provide temporary sanitary facilities at needed locations.

4.4.2 Monitoring Wells

Chevron will work with the RWQCB to determine the location of post-remediation wells needed to monitor the Site after remediation. Existing wells located outside of the anticipated limits of remediation activities that will be needed for post-remediation monitoring will be retained and protected in place if feasible. New wells will be installed using a drill rig in accordance with DWR Bulletin No. 74-81 and Supplement No. 74-90, and County permit regulations for well construction.

For the purposes of impact evaluation, it is assumed that a total of 30 new wells will be installed using a drill rig over a duration of 50 days over several periods of time. See Figure 4-11 for existing monitoring well locations and the wells anticipated to be within remediation and Site grading areas. Soil cuttings generated from drilling will be loaded in bins and trucked offsite for disposal at the Santa Maria Landfill or another approved facility.

4.4.3 Remedial Actions

Chevron's proposed remedial actions were developed with input from the ATCAT agencies (see Section 1.3 for more details on this process) and in consultation with the RWQCB. The risks to human and ecological receptors and other remediation drivers were used to designate five "Operable Units" (OUs) at the Site, each containing one or more "areas of concern" (AOCs) (see Figure 4-12, *Operable Units and Areas of Concern*).

The *Remedy Selection Report* (Avocet, 2015) developed in consultation with the RWQCB outlines a comprehensive remedial program to address the outstanding Site issues identified in the *Pre-Feasibility Study*. Those specific actions are listed in the table below and in the detailed description following the table.

Table 4-8 Remedial Actions

AOC	Contaminants	Preferred Remedy
OU 1 –Loading Rack and Pump House Area		
1	naTPH in soil, VOCs & methane in soil gas, & LNAPL on groundwater	Excavate overburden and naTPH > 1,000 soil to water table (average ~10 feet bgs), backfill with naTPH<1,000 overburden and onsite borrow, and raise existing grade 5 feet minimum to prevent future surface expression of LNAPL. Impacted soil will be disposed of offsite. Implement ICs and ECs and conduct Long-Term Monitoring (LTM) to verify ongoing natural attenuation.
OU 2 – Former Operations Area		
1	Refractory glass in near-surface soil	Surficial soil containing refractory glass in and downslope of former Refinery area is removed and interred onsite in a planned fill area with a minimum 5 feet of cover. Implement ICs.
2	Lead in near-surface soil at AST rings	Lead-impacted (>100 mg/kg), near-surface soil from former tank rings is removed and transported offsite for disposal. Backfill with onsite naTPH<1,000 borrow material.
3	naTPH in Refinery area soil	Provide minimum 4' separation between ground surface and naTPH>1,000 soil. Implement ICs and ECs.
4	VOCs in Refinery area soil gas	Implement ICs and ECs.
5	naTPH in soil along pipeline corridors	Remove pipelines and naTPH>1,000 soil encountered during remediation grading. Dispose naTPH > 1,000 soil offsite. Provide a minimum 4' separation between residual naTPH>1,000 soil and ground surface. Implement ICs and ECs.
6	VOCs in soil gas at former ASTs	Implement ICs and ECs.
OU 3 – Non-Operations Area		
1	Intact asphaltic TPH ground cover	No active remediation. Handling of this material will only be done for Site grading.
OU 4 – Site-Wide Groundwater		
1	LNAPL on water table	No active remediation. ICs and ECs implemented. LTM to verify no migration and natural attenuation ongoing.
2	Dissolved-Phase hydrocarbons in groundwater	No active remediation. ICs and ECs implemented. LTM to verify no migration and natural attenuation ongoing.
3	Cliff Springs	No active remediation. Part of ongoing monitoring program.
OU 5 – Cliff Area Remediation Project (Not a part of the proposed Project; permitted as a separate project under Permit No. ZON2013-00416).		

Notes: IC - Institutional Control, EC - Engineering Control (see Sections 4.4.5 and 5.9 for details)

OU 1 – Loading Rack and Pump House Area

Former Loading Rack and Pump House Area (OU 1/AOC 1)

Work in the loading rack and pump house area will remove impacted soils with concentrations of naTPH greater than 1,000 mg/kg between the current ground surface and groundwater. As feasible, the work will be scheduled to occur at a time of seasonally low groundwater elevations to maximize the removal of contaminated soil.

The excavation will encompass an area of approximately 2 acres. The depth of excavation could vary from 5 to 15 feet (based on the groundwater depth at the time of excavation), with an assumed average depth of 10 feet. For CEQA purposes, this EIR assumes a likely excavation depth of 10 feet bgs to estimate the soil volumes. It is estimated that approximately 35,000 cubic yards of soil will be excavated within the former loading rack and pump house area. Of this, approximately 28,000 cubic yards of soil is expected to have naTPH>1,000 mg/kg.

The soil impacted by naTPH >1,000 mg/kg will be segregated for transport offsite to either the Santa Maria Landfill, Cold Canyon Landfill, or another appropriate facility. After accounting for shrinkage (assumed as 10 percent), approximately 6,300 cubic yards of soil with naTPH <1,000 mg/kg will be used onsite as backfill. The expected total excavation volume and portion of anticipated reusable soil are summarized in Tables 4-2 and 4-6.

Sheet pile walls are planned to stabilize the northern and eastern boundaries during excavation. A conceptual plan of the excavation is shown in Figure 4-13, *Selective Source Removal and Separation Plan, Pump House and Loading Rack Area*, and representative cross sections are presented in Figure 4-14, *Pump House Area Excavations Cross Sections*. The final excavation extents and confirmation soil sampling program will be determined in consultation with the RWQCB. The excavated soil will be temporarily stockpiled and tested. Soil with naTPH>1,000 mg/kg will be segregated and trucked offsite for disposal at the Santa Maria Landfill or another approved facility. Soil that meets the requirements for use as backfill will be stockpiled within the proposed stockpiling areas.

If groundwater is encountered during excavation, it will be removed with a vacuum truck or a sump pump will be used to transfer the water into one or more temporary water storage tanks. The recovered water will be sampled, tested, profiled, and disposed offsite at a licensed facility as described in Section 4.2.2.

The floor of the excavation will be marked with geotextile and then backfilled mostly with material generated onsite from excavations or borrow sources and compacted per the specifications in the County-approved grading plans. A geotextile will be installed over the floor of the excavation to act as a marker and a separation layer. Per geotechnical recommendations, the geotextile may be overlain with a 3-foot-thick layer of angular float rock (with a nominal size of 3 to 4 inches) to stabilize the unconsolidated soils in this area. The float rock layer will be covered with another geotextile fabric, followed by backfill material

generated onsite from excavations or borrow sources and compacted per the specifications in the County-approved grading plans. The float rock and geotextile will be imported to the Site.

To prevent future surfacing of groundwater, the grade throughout the pump house and loading rack area will be raised at least 5 feet above its current level. The raised ground surface will be graded to provide positive drainage and vegetated to minimize erosion. As shown in Figure 4-14, in the remediation excavation area the planned grading will remove at least 10 feet of impacted soil and backfill the excavation with at least 15 feet of soil.

Long-term monitoring of the groundwater will be implemented as described in the Section related to OU 4, *Site-Wide Groundwater*. Institutional and engineering controls, as described in Section 4.4.5, will be implemented as determined to be appropriate and necessary for redevelopment, in consultation with the RWQCB.

OU 2 – Former Operations Area

<u>Refractory Glass in Near-Surface Soil (OU 2/AOC 1)</u>

Refractory glass is present in the northern portion of the former Refinery area (see Figure 4-15, *Lead-Impacted and Refractory Glass-Containing Soil Removal*). It is in the form of discrete particles on the ground surface and aggregate consisting of particles mixed with soil, typically located within the top two feet of the ground surface. It has also sloughed down the steep northern slope, which has dense tree cover. The estimated volume of refractory glass-containing soil is approximately 2,800 cubic yards.

A long-reach excavator positioned at the top of the slope will be used to remove most of the refractory glass-impacted material. Additional removal will be conducted using small equipment and hand labor to avoid damaging trees and large shrubs. A visual survey, as opposed to the collection and analysis of confirmation oil samples, will be used to verify that the refractory glass-containing soil has been removed to the extent desired.

The refractory glass will be loaded onto a truck and transported to an onsite interment location as close as possible to the removal site. The refractory glass will be placed in an existing low point or an excavated area that is at least 10 feet above the local historical high groundwater elevation and covered with at least 5 feet of soil that meets the requirements for use as backfill. The location of the interred refractory glass will be documented in the land covenants to reduce the potential for it to be inadvertently disturbed in the future. For CEQA evaluation purposes, it is assumed that the refractory glass-containing soil will be interred in the area shown in Figure 4-15.

It is anticipated that the long-reach excavator, one loader, one compactor, one backhoe, and two end-dump trucks will be used for a duration of 15 days to complete the excavation and interment of the refractory glass-impacted soil.

Institutional controls, as described in Section 4.4.5, will be implemented to ensure that the interred refractory glass is not inadvertently disturbed.

Lead in Near-Surface Soil at AST Rings (OU 2/AOC 2)

Lead-impacted soil, located in the top foot of soil within the former tank rings, will be excavated and transported offsite for disposal. The remediation goal is 100 mg/kg of total lead, which is the upper background concentration at the Terminal (Avocet, September 10, 2004).

The locations of the nine tank rings and planned removal areas are shown in Figure 4-15. An excavator will be used to scrape and excavate the near-surface soil impacted with lead. The excavated soil will be temporarily stockpiled and tested. After surface removal, confirmation sampling will be conducted along the sides and floor of the excavation as determined in consultation with the RWQCB. Soil with lead concentration greater than 100 mg/kg will be segregated and trucked offsite for disposal at the Buttonwillow Landfill, Kettleman Hills Landfill, or another approved facility.

naTPH in Soil Around Refinery Area (OU2/AOC 3)

A remediation goal as defined in the Pre-Feasibility (Pre-FS) Study Report is to ensure that soil impacted with naTPH >1,000 mg/kg has at least 4 feet of clean cover. The Pre-FS evaluated the Site conditions and features, summarized potentially unacceptable risks to human and ecological receptors, and provided risk recommendations that support the proposed future Site use. The 4-foot separation between the final grade and soil impacted with naTPH >1,000 mg/kg will be accomplished by either removing impacted material, placing soil cover, or some combination of the two. Figure 4-16, *naTPH >1,000 mg/kg Within 4 Feet of Existing Ground Surface*, provides the extent of soil with naTPH >1,000 mg/kg that is known to be within 4 feet of the ground surface throughout Site, including the refinery area.

In the refinery area, the areas of soil impacted with naTPH>1,000 mg/kg within 4 feet of the existing grade are relatively small and generally overlap the pipeline excavation within the refinery area, so this material will be removed during the pipeline excavation activities. Confirmation soil sampling will be conducted along the excavation side walls to ensure that the TPH-impacted soil is adequately removed. The final excavation extents and confirmation soil sampling program will be determined in consultation with the RWQCB.

Institutional and engineering controls, as described in Section 4.4.5, will be implemented as determined to be appropriate and necessary for redevelopment, in consultation with the RWQCB.

VOCs in Refinery Area Soil Gas (OU 2/AOC 4)

The approximate areal extent of VOC-impacted soil gas potentially posing a human health risk is shown in Figure 4-17, *Approximate Extent of VOC-Impacted Soil Gas Posing a Potential Human Health Risk*. Potential human health risks associated with the VOCs in soil gas will be mitigated

by implementing institutional and engineering controls. Land covenants developed in consultation with the RWQCB will require engineering controls for any potentially occupied structure where vapors from residual contamination could be generated. Installation of the engineering controls will be a requirement of the future developer during building construction. The controls could include raised foundations, sub-grade vapor barriers, active ventilation systems, or other technology as required by local ordinance or agreement with the RWQCB in consultation with EHS.

naTPH in Soil Along Pipeline Corridors (OU 2/AOC 5)

A remediation goal as defined in the Pre-FS is to ensure that soil impacted with naTPH >1,000 mg/kg has at least 4 feet of clean cover. Similar to OU 2/AOC3, this will be accomplished by either removing impacted material, placing soil cover, or some combination of the two. Specific details of excavation and fill placement are described in the sections on Petroleum Pipeline Removal/Abandonment (see Figure 4-10) and Site Grading.

Institutional and engineering controls, as described in Section 4.4.5, will be implemented as determined to be appropriate and necessary for redevelopment, in consultation with the RWQCB.

VOCs in Soil Gas at Former ASTs (OU 2/AOC 6)

The approximate areal extent of soil gas to be remediated is shown in Figure 4-17. Land covenants developed in consultation with the RWQCB will require engineering controls for any potentially occupied structure built where vapors from residual contamination could be generated. Those engineering controls may include raised foundations, sub-grade vapor barriers, active ventilation systems, or other technology to satisfy the requirement for engineering controls as required by local ordinance or agreement with the RWQCB. Installation will occur during the building construction activities of Site redevelopment.

OU 3 – Non-Operations Area

Intact Asphaltic TPH Ground Cover (OU3/AOC1)

Asphaltic TPH was sprayed onto surfaces throughout the operations area for weed control and slope stabilization (see Figure 4-18, *Sprayed-On Asphaltic TPH on Ground Surface*). The material is inert (not bioavailable), so no remedial action is required. This is discussed further in the Site Grading section (see Section 4.4.4).

OU 4 – Site-Wide Groundwater

LNAPL on Water Table (OU 4/AOC 1)

No active remediation is proposed. Site assessment and years of monitoring have shown that the LNAPL is not migrating and does not pose a human health risk. Assessment has also shown that microbial action is naturally reducing the LNAPL. Since there is no risk to human health or

further impact to natural resources, the RWQCB has concurred that long-term monitoring (LTM) with appropriate institutional and engineering controls is the most appropriate remedial action.

Institutional and engineering controls for LNAPL will be implemented in consultation with the RWQCB. Chevron will continue to verify that groundwater conditions are stable and that natural attenuation is ongoing under the current monitoring program. The monitoring program will be modified periodically (e.g., well abandonment, well installation) as approved by the RWQCB, with the goal of reducing the program over time to the minimum necessary infrastructure.

See section on Monitoring Well Abandonment for deconstruction details and the section on Monitoring Well Protection and Installation for installation details. Onsite groundwater monitoring wells are currently monitored on a semiannual basis using two support trucks and standard groundwater monitoring and sampling equipment. The LNAPL monitoring procedure is a physical measurement that does not generate waste. Handling and disposal of waste generated during monitoring activities is discussed in the following section.

Dissolved-Phase Hydrocarbons in Groundwater (OU 4, AOC 2)

No active remediation is proposed. Site assessment and years of monitoring have shown that the dissolved-phase hydrocarbons in groundwater are stable and there are no complete pathways for human and ecological receptors. Assessment has also shown that microbial action is naturally reducing the LNAPL. Since there is no risk to human health or further impact to natural resources, the RWQCB has concurred that long-term monitoring with appropriate institutional and engineering controls is the most appropriate remedial action.

Institutional and engineering controls for LNAPL will be implemented in consultation with the RWQCB. Chevron will continue to verify that groundwater conditions are stable and that natural attenuation is ongoing under the current monitoring program. The monitoring program will be modified periodically (e.g., well abandonment, well installation) as approved by the RWQCB, with the goal of reducing the program over time to the minimum necessary infrastructure.

See section on Monitoring Well Abandonment for deconstruction details and the section on Monitoring Well Protection and Installation for installation details. Onsite groundwater monitoring wells are currently monitored and sampled on a semiannual basis using two support trucks and standard groundwater monitoring and sampling equipment. The groundwater monitoring activities will generate approximately two drums of waste during each monitoring event. The drums will be sampled, profiled, and trucked offsite for disposal at either the Buttonwillow Landfill, Kettleman Hills Landfill, or another approved facility.

Cliff Springs (OU 4/AOC 3)

No active remediation. The cliff springs are not contaminated and the water that expresses is believed to be relatively recent precipitation, which infiltrates into the near subsurface and then seeps from the cliff face. Since the cliff springs involve perched water with no contamination issues and are not connected hydrologically to the affected groundwater, no active remediation is necessary. Chevron will continue to implement the cliff springs monitoring program to verify that Site conditions are stable.

Cliff spring monitoring and sampling activities will be performed when determined safe to do so during periods of low tide and during daylight hours. Cliff spring monitoring activities will be performed per the Monitoring and Reporting Plan and will include visually inspecting the cliff spring locations. Cliff spring sampling activities will be performed once a year during the first or second quarter if there is sufficient water flow emanating from the cliff springs. The monitoring program will be modified periodically as agreed with the RWQCB and reduced down to a minimal level over time.

OU 5 – Cliff Area Remediation Project

In the area of the Project Site referred to as the cliff area, Chevron is engaged in active remediation to address the naTPH-impacted soil and bedrock.

The Cliff Area remediation system started operating in August 2013 and includes soil vapor extraction wells, dual-phase extraction wells, monitoring wells, transfer piping, water holding tanks, blowers and two vapor abatement devices (a thermal oxidizer and a catalytic oxidizer). Aboveground pipes connect the thermal oxidizer to onsite propane tanks and above ground conduits route electrical power to the system from an onsite transformer connected to an onsite PG&E power pole.

Currently, the thermal oxidizer is utilized for vapor abatement due to the high concentration of naTPH vapors. When the vapor concentrations are sufficiently reduced, the catalytic oxidizer will replace the thermal oxidizer and the propane tanks will no longer be needed. It is anticipated that the future vapor concentrations will decrease to a point where the final phase of vapor extraction will be conducted using a blower(s), vapor phase carbon vessels and water holding tanks, all contained within a fenced enclosure.

The Cliff area work is being performed as a focused stand-alone project (Cliff Area Remediation Project) at the direction of the RWQCB under a separate permitting and environmental analysis process and will continue independent of any remedy selection and proposed work for the larger Project Site. As this remedial action is being conducted and permitted separately, the Cliff Area Remediation Project is not part of the proposed Project.

4.4.4 Site Grading

The construction support facilities previously described and shown in Figure 4-4 will be retained during the Site grading activities to the extent possible. Some of these facilities may be temporarily relocated to accommodate grading in those areas, as and when required. The ABCSD water tanks and the Chevron-owned water tank will be retained in their current locations until it becomes necessary to relocate or remove them to allow grading in those areas.

It is estimated that approximately 127,000 gpd (the maximum estimated for construction for the duration of the Project) of water will be required for dust control, soil moisture conditioning, and support facilities during construction activities associated with Site grading. The contractor will provide temporary sanitary facilities at needed locations.

Grading will be conducted to support both remediation and site preparation for the future redevelopment Project. Design and construction of the grading will achieve remediation requirements by providing a minimum 4-foot cover over soils impacted by naTPH >1000 mg/kg and preventing ponding by reconfiguring the storm water system.

The extent of grading is shown in Figure 4-21, *Site Grading* and Table 4-6. As feasible, grading will be designed to achieve onsite balance after taking into account the volume of impacted soils that will be transported offsite. Overall, Site grading will involve approximately 267,000 cubic yards of cut and 170,000 cubic yards of fill. For CEQA evaluation purposes it is estimated that an additional 1,500 cubic yards of TPH-impacted soil will be encountered during the Site grading activities. Approximately 34,000 cubic yards will be transported offsite, and 10,000 cubic yards of rock will be imported for geotechnical purposes. After accounting for shrinkage (assumed as 10 percent), approximately 12,200 cubic yards of soil will be available as contingency to account for unanticipated remediation that may be encountered during implementation (see Table 4-6 for details).

The excavated soil in areas of known naTPH impacts will be temporarily stockpiled over visqueen until it is tested and profiled. The soil stockpile will also be temporarily covered by visqueen to minimize erosion and air emissions. Perimeter Best Management Practices (BMPs) such as silt fences and sandbags may be installed around the stockpiling areas to contain possible erosion and runoff associated with the stockpiles. For the purposes of a conservative impact evaluation, this Project Description assumes that soil with naTPH >1,000 mg/kg will be segregated and trucked offsite for disposal at either the Santa Maria Landfill, Cold Canyon landfill, or another approved facility. However, the actual criteria for determining soil suitable for reuse as onsite backfill will be determined by the RWQCB.

Areas of relatively intact asphalt within the Site grading limits will be removed during excavation and used as backfill in the lower portion of Site fill areas. Asphalt areas outside grading limits will be allowed to disintegrate naturally.

Fill compaction specifications will be provided on grading plans approved by the County. The finished grade will provide gently sloping surfaces with positive drainage (approximately 2 percent slope) that will require a minimum of fine grading prior to construction for the future redevelopment.

Storm Water Management System

The existing configuration of the storm water system is shown in Figure 4-2d, *Existing Drainage*. The system of catch basins and inter-tank ring piping appears to be intact, although valves have been removed. The lower drainage basin is used to collect storm water prior to discharge through an existing outfall structure to the Pacific Ocean.

The RWQCB has asked that surface water impoundments that could result in increased infiltration of surface water to groundwater be minimized after remediation and grading of the Site. As part of remediation, the remaining drainage and containment facilities will be removed and the Site will be graded to ensure that storm water is managed through well-sloped open channels.

Most of the existing storm water drains will be removed as part of the petroleum pipeline and utilities abandonment activities. Several of the storm water drains shown in Figure 4-2d were historically used as tank pad drains. Storm water-related pipelines that remain after those activities will also be removed using the procedure described in Section 4.3.5, *Remove Existing Utilities and Third Party Facilities*. The equipment, quantities, and truck trips associated with this work have mostly been discussed in either the petroleum pipelines and/or utilities removal activities. Some contingency to handle soil with naTPH >1,000 mg/kg has been provided in Tables 4-2 and 4-3.

The Site will continue to discharge storm water via the drainage basin and outfall system. Modifications will be made to the lower basin and the outfall to ensure that it continues to properly manage storm water, including providing a new discharge pipe with necessary supports and anchors.

<u>Areas Dominated by Hydrophytic Vegetation</u>

Seven “wetland features” within the Project Site have been identified as areas dominated by hydrophytic vegetation based on criteria established by the California Coastal Commission (see Figure 4-19a, *Areas Dominated by Hydrophytic Vegetation*). Features 1 through 6 are located in closed, man-made depressions around former ASTs and are fed by a man-made drainage system. Feature 7 is located adjacent to Avila Beach Drive, around the entrance to a culvert that drains the northern portion of the Site. Based on delineations in 2012 through 2015, the combined area of the seven features on the Project Site is 1.31 acres. The delineations have not yet been verified by the appropriate agencies.

Features 1, 3, 3A, 4, 5, and 6 (approximately 0.83 acre) will be removed to implement the remediation component of the Project. The Site has several constraints for relocating wetlands onsite, including steep slopes, non-hydrophylic soils, oak woodlands, cultural resources, and landslide areas. Additionally, wetlands cannot be established onsite over areas with contaminated groundwater. Therefore, Chevron is proposing to mitigate for wetland removal utilizing an offsite mitigation bank.

The Land Conservancy of San Luis Obispo County retained a parcel of approximately 18 acres located southeast of the Highway 101/San Luis Bay Drive overpass for use as a wetland mitigation bank. Figure 4-19b, *Potential Wetland Mitigation Location Map*, identifies the location of the mitigation bank in relationship to Avila Point. This parcel straddles the San Luis Obispo Creek, with the proposed area for Avila Point wetland mitigation located on the east side (see Figure 4-19c, *Potential Wetland Mitigation Opportunity Area*). Both Avila Point and the mitigation bank share the same watershed corridor, making the mitigation bank a logical location for mitigation.

<u>Oak Woodlands and Existing Trees</u>

The existing oak woodland is located primarily outside of the remediation grading area, and it is Chevron's intent is to protect the oak woodland as described in this section (see Figure 4-20a, *Oak Woodlands).* Site grading has been designed to minimize impacts on existing trees.

The trees located within and adjacent to the proposed grading limits were surveyed in early 2015 and a report prepared. The survey identified six tree species (Acacia sp.; *Hesperocyparis macrocarpa* [Monterey Cypress]; Juglans sp. [Black Walnut]; *Pinus radiata* [Monterey Pine]; *Quercus agrifolia* [Coast Live Oak] and *Quercus lobata* [Valley Oak]) and two shrub species (Heteromeles arbutifolia [Toyon] and Myoporum laetum). The only species native to the Site are Toyon and Coast Live Oak. Monterey pine was the prevalent species.

A report was prepared to document relevant information for each tree in the surveyed area: tag number, species, diameter, condition, construction impact from cut or fill, recommended status (save or remove), and the approximate percent of impacted drip line for trees bordering the grading areas. The condition (health) of each tree was assigned a rating between 1 and 10, with 1 - 3.5 (poor), 4 - 6.5 (fair), 7 - 9 (good), and above 9.5 (excellent).

The survey identified 98 trees with a diameter ≥ 8" subject to impacts from grading activities (see Figure 4-20b, *Trees to be Removed During Remediation Grading* and Table 4-9, *Trees Within Remediation Site Grading*). Trees to be removed for grading include 82 Monterey Pines (4 dead), 11 Coast Live Oaks, 0 Toyon, 4 Monterey Cypress, and 1 Black Walnut. Of these 98 trees, 97 will be removed during the remediation grading. Of the 97 trees to be removed during remediation grading, 68 trees were rated lower than 5 for overall condition, 12 trees were growing on temporary stockpiles or berms, and 25 trees were either diseased or stressed from the drought.

Tree mitigation recommendations are provided in the tree survey report and include replacement of native trees only (Coast Live Oak and Toyon). It is anticipated that tree mitigation will be integrated into the final Site design and restoration/landscaping for the resort, so discussion regarding tree mitigation is addressed in Section 5.0.

4.4.5 Engineering and Institutional Controls

Land covenants will be developed and implemented in consultation with the RWQCB. The land covenants will be implemented concurrent with the completion of remediation and redevelopment activities.

The remedial actions propose institutional and engineering controls (ICs and ECs, respectively) to achieve the remediation goals. The anticipated ICs and ECs are summarized below.

Institutional Controls (ICs):

Groundwater Use Restrictions – Recorded as negative covenants in the County records, and will limit or prohibit uses of groundwater under parcels in identified areas. This may be accomplished in a standalone document(s) and/or as part of the deed(s) at the time of conveyance.

Use Restrictions – Recorded as negative covenants in the county records, and will limit the land use of specified parcels to specific purposes, in this case commercial. This may be accomplished in a standalone document(s) and/or as part of the deed(s) at the time of conveyance.

Notice of Subsurface Chemicals of Concern – Disclosures recorded in the county records, and will notify all future landowners of present areas where subsurface chemicals of concern are located to minimize the potential for future exposures through soil excavation or disturbance. This may be accomplished in a standalone document(s) and/or as part of the deed(s) at the time of conveyance.

Engineering Controls (ECs):

Vapor Barriers or Equivalent – Will be required for any new occupied building or structure constructed in redevelopment areas where vapors from residual contamination could be generated. Engineering controls may include raised foundations, sub-grade vapor barriers, active ventilation systems, or other technology to satisfy the requirement for engineering controls as required by local ordinance or agreement with the RWQCB. Installation will occur during the building construction activities of Site redevelopment.

4.4.6 Post-Remediation Hydrology

Interim erosion controls will be implemented between Site grading and development (see Figure 4-22, *Post-Remediation Hydrology*). Temporary drainage channels, down drains along

slopes, and BMPs will be provided to ensure that the storm water drains under gravity into the lower drainage basin without causing erosion and stability issues. The Site will continue to discharge storm water via the existing drainage basin and outfall system. As described in Section 4.4.4, modifications to the lower basin and the outfall will be made to ensure that the basin continues to properly manage storm water.

5.0 ENTITLEMENT AND REDEVELOPMENT

5.1 INTRODUCTION

Chevron intends to obtain the necessary entitlements both to remediate and redevelop the Project Site. Implementation of the proposed Project will require amendments to the County General Plan/LCP, and Avila Beach Specific Plan as related to the Project Site (see Figure 1-1) to allow for a resort with uses such as lodging, commercial (restaurant, spa, resort uses), and open space.

After remediation of the Project Site as appropriate for the intended end use, Chevron will initiate fine grading and construct backbone infrastructure to facilitate subsequent redevelopment. The ultimate design and construction of the structures and facilities on the Project Site will be completed by a future developer, rather than Chevron. Nevertheless, entitlement and redevelopment are discussed together in this section of the Project Description because the entitlements obtained by Chevron will determine the scope of redevelopment activities by the future developer for purposes of impact analysis.

In addition to the General Plan/LCP/Avila Beach Specific Plan amendments, the Project includes a VTM for redevelopment and a Development Plan for remediation activities that will prepare the Site for future resort use. For the redevelopment component of the Project, the VTM creates parcels on the Site and subdivides it for phased implementation. Based on the VTM, Chevron will install backbone infrastructure, circulation features (roads, coastal trail, etc.), and conduct fine grading for the future redevelopment of the Site.

The future developer will complete the infrastructure improvements; prepare detailed designs for the Site, buildings, landscape, and utilities per the Avila Beach Specific Plan standards and guidelines; and process an application through the County for Minor Use Permit(s) prior to applying for building permits (grading, construction, encroachment) for the resort structures and associated Site work (vertical construction). The final phasing of the resort construction will be determined at the time of implementation, as it will be dependent on numerous factors such as market conditions and the developer's implementation plans.

5.2 LAND USE DESIGNATION

Avila Point land use is regulated by the 2001 Avila Beach Specific Plan and San Luis Bay Area Plan/ LCP.[3]

The 2001 Avila Beach Specific Plan identified the Site for future remediation and redevelopment and provides recommendations for uses such as conference center with lodging, trails, and open space. The 2001 Specific Plan also stipulated that future use of the Site will be considered during the remediation review process and subsequent amendment to the Avila Beach Specific Plan.[4]

The Project will amend the 2001 Avila Beach Specific Plan and LCP with a request to change the land use designation for the Site from Industrial (IND) to Recreation (REC). Additionally, the amendments to the Specific Plan will be updated to include design concepts and guidelines that reflect development concepts specific to the Project and will include a list of allowable and prohibited uses for the Project.

5.2.1 Existing Land Use – Industrial

The San Luis Obispo County Title 23 - Coastal Zone Land Use Ordinance identifies the Site as Industrial (IND) (see Figure 5-1a, *Existing and Proposed Land Use*). Though the Project Site is currently designated Industrial (IND), the Avila Beach Specific Plan specifies redesignation of the "Tank Farm" (Avila Point) property land use. Adjacent land uses include Recreation (REC), Residential Multi-family (RMF), Residential Single Family (RS), Residential Rural (RR), and Open Space (OS) surrounding the Site (see Figure 5-1b, *Adjacent Land Use Map*).

5.2.2 Proposed Land Use – Recreation

The Project proposes to redesignate the entire 95-acre Project Site as a Recreation (REC) land use (see Figure 5-1a). Converting the site to Recreation allows the site to be opened to visitor-serving and resort-oriented uses. Table "O" of the Coastal Zone Land Use Ordinance lists uses that are permitted within the Recreation land use category.

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[3] San Luis Bay Area Plan page 8-8. The Avila Beach Specific Plan, and any amendments made thereto, is hereby incorporated into this Land Use Element as though it were fully set forth here. All development within the Avila Beach Specific Plan planning area (Figure 8-3) is to be in conformity with the adopted Specific Plan, as well as all other applicable LCP standards. In the event of any conflict between the provisions of the San Luis Bay Area Plan and the Specific Plan, the Specific Plan shall control.

[4] 2001 AVSP, Pg. 156. Future use of the site will be considered during the remediation review process and a subsequent amendment to the Avila Beach Specific Plan. The amendment will include a request to amend the Specific Plan to change the land use designation from Industrial (IND) to a new category which would enable development similar in physical scale and functional characteristics to that described in the Specific Plan.

The land uses envisioned for the Site include visitor-serving uses that support overnight accommodations, such as resorts, hotels, vacation rental units, bungalows, tent cabins, casitas, and bed and breakfast lodgings. Other uses related to passive recreation, such as paths, trails, scenic overlooks, sightseeing facilities, and picnicking, are also considered components of the Project.

The Avila Beach Specific Plan amendment will customize the allowable land uses for the Project Site. Future permitted land uses will be primarily visitor-serving uses from the Table "O" Recreation category with the addition of secondary uses to supplement the resort uses[5]: (1) office (A) - allowed use; (2) Schools-College and University (S-4) – special use subject to special standards; (3) public/private utilities – water tank, package treatment plant, desalination plant (A) – allowed use; and (4) senior living facility/nursing and personal care (S-6) – special use subject to special standards.

The proposed use for the Scout House area of the Site is meeting rooms. The Project includes optional uses that could potentially replace the proposed use for the Scout House area, either as standalone or secondary uses to the visitor-serving resort uses. The optional uses include office, retail with meeting rooms, multi-family residential, or desalination plant and package wastewater treatment plant.

5.2.3 Prohibited Uses

The Avila Beach Specific Plan amendment will customize the prohibited uses for Avila Point. The following uses are allowed in the Recreation category in Table "O" of the Coastal Zone Land Use Ordinance but will be prohibited within the Project Site by the proposed Avila Beach Specific Plan amendment. These uses are not consistent with the intent of providing overnight accommodations with passive recreational amenities.

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[5] (A) - Allowed uses are defined as an allowed use unless otherwise limited by a specific planning area standard. (S) - Special uses are allowable subject to special standards and/or processing requirements as identified on Table "O" and Title 23, Chapter 8.

- Agriculture Accessory Structures
- Animal Raising and Keeping
- Specialized Animal Facilities
- Off-Road Vehicle Courses
- Schools – Pre to Secondary
- Sports Assembly
- Electric Generating Plants
- Recycling Collection Stations
- Home Occupations
- Mobile Home Parks
- Mobile Homes
- Fisheries and Game Preserves
- Forestry
- Service Stations
- Financial Services
- Recreational Vehicle Parks
- Airfields and Landing Strips
- Marine Terminals and Piers
- Transit Stations and Terminals
- Vehicle Storage

5.3 REDEVELOPMENT PROJECT

The redevelopment concept is to restore the Site and make it accessible to the public with one- to two-story resort buildings surrounded by protected open space and coastal views.

The Project proposes resort retreat that is economically viable and embraces sustainability, recreation, healthy lifestyles, and the natural beauty of the coastal setting.

The Recreation (REC) land use designation for the Site allows for visitor-serving and resort-oriented uses. A reduced automobile footprint is envisioned, with the majority of guests using walking trails, bikes, and electric shuttles to access the site and downtown Avila Beach. Protected open space and oak woodlands surround the developable portion of the Avila Point Site, with the California Coastal Trail winding along the bluff edge, offering guests and the Avila Beach community a place to hike, gather, dine, recreate, and relax.

5.3.1 Development Considerations

The Site has several development considerations that have influenced the potential areas for redevelopment:

- Slopes greater than 30 percent
- Landslide area and fault trace
- Oak woodlands and existing trees
- Coastal bluff setback
- Areas dominated by hydrophytic vegetation
- Cultural Resources
- Contamination from past industrial activities
- Existing Cliff Area Remediation System

Figure 5-2, *Post-Remediation Development Considerations*, illustrates the general location of primary considerations.

Slopes Greater than 30 Percent

Approximately 47 percent of the 95-acre Avila Point site has slopes greater than 30 percent. These slopes are located on the north side of the site, which is covered with oak woodland and on the south side of the site sloping down toward the ocean. The proposed development area has been designed to avoid the 30 percent slope areas.

Landslide Area and Fault Trace

There are three existing landslides on the Site and a portion of the San Miguelito fault trace. The landslides and the fault zone are located at the edge of the Site. The San Miguelito fault is inactive. The proposed Project has been designed to avoid the landslide areas and the fault zone.

Oak Woodlands and Existing Trees

The existing oak woodland is located primarily outside of the Remediation Site grading area. It is the intent to protect in place trees within the oak woodland. The majority of tree removal will take place with the remediation grading (see Section 4.4.4). Construction of the parking lot next to Avila Beach Drive will require the removal of three 15-inch and one 20-inch oaks trees (see VTM). In addition, depending on the option implemented at the Scout House, it is anticipated that at least one 17-inch oak tree may need to be removed in the Scout House area. As discussed in Section 4.4.4, these trees will be mitigated onsite.

Oak trees and Toyon bushes (the only two native species) impacted as a result of construction activities will be mitigated at a 2:1 replacement ratio. It is anticipated that tree mitigation will be integrated into the final Site design and restoration/landscaping for the resort.

If a Land Use Permit for redevelopment is not submitted within two years after completion of remediation and Site grading, the trees will be planted in the designated tree mitigation areas (see Figure 5-16b, *Potential Tree Mitigation Areas*). These areas have been selected so that the replacement trees will screen views of future development from downtown Avila Beach, from the Pirates Cove parking lot, and of parking areas along Avila Beach Drive.

Coastal Bluff Setback

The California Coastal Act (Pub. Res. Code Section 30253(b)) requires the siting of coastal developments a sufficient distance landward of coastal bluffs such that developments are not endangered by erosion and will not lead to the construction of protective coastal armoring. This necessitates establishment of a development setback line to assure that proposed structures are placed an adequate distance from the coastal bluff over the course of the structure's design life. The 75-year development setback line (bluff setback) for the Project recommended through conservative analysis is shown in Figure 5-2.

Areas Dominated by Hydrophytic Vegetation

As discussed in Section 4.4.4, five areas dominated by hydrophytic vegetation will be removed by remediation activities, and any required mitigation is proposed for a designated offsite area. Features 2 and 7 will remain onsite (see Figure 4-19a. Feature 2 is located near the Cliff Area Remediation Project, and Feature 7 is located by Avila Beach Drive in the area of a proposed parking lot and culvert under Avila Beach Drive.

The culvert installation will temporarily impact approximately 0.01 acre of this delineated area (approximately 60 percent onsite and 40 percent within County right-of-way).

The lower parking lot and associated 50-foot wetland setback zone will affect approximately 0.29 acre of this delineated feature. Of this area, approximately 0.10 acre is impacted by the parking lot and 0.19 acre within the 50-foot setback area.

As discussed in Section 4.4.4, required mitigation for impacts to verified wetlands due to the Project is proposed for an offsite mitigation bank area (see Figures 4-19b and 4-19c).

Cultural Resources

In 2010, as part of Chevron's future plans for the Site, a group of Chumash descendants of the Avila Beach area (named Yak Tityu Tityu) met with Chevron, County representatives, and others to discuss Chevron's future redevelopment plans for Avila Point. As part of these discussions, Gibson's Archaeological Consulting prepared two follow-up reports (2010 and 2012) and made recommendations for the assessment and treatment of cultural resources at the Site.

Subsequent to the development of these reports, Chevron continues to conduct extensive outreach with Native American representatives. The objective of this outreach has been to discuss, receive input, and cooperate on actions to avoid or minimize disturbance during remediation and redevelopment through the implementation of a Cultural Management Program that both respects archaeological findings and meets the objectives of the proposed redevelopment Project.

Contamination from Past Industrial Activities

Although the remediation component of the Project will remove much of the contamination at the Site, residual contaminants will still be present once that work is completed. Residual contaminants will be buried under at least 4 feet of engineered fill. To prevent accidental contact with residual contaminants (e.g., a contractor digging in a restricted area, using impacted groundwater, or allowing vapors to build within occupied structure) or potential effects due to exposure to vapors, institutional and engineering controls will be used. See Section 5.10 for more details.

Existing Cliff Area Remediation System

Chevron is currently engaged in active remediation in an area next to the coastal bluff, which is referred to as the "Cliff Area Remediation Project." As discussed in Section 1.0, remediation in

the cliff area will continue independent of the remediation proposed in this Project Description for the Site (Avila Point Project) and is an existing condition for the purposes of this Project Description.

This system will continue to operate until the RWQCB determines that it is no longer needed, so it is possible that this equipment may still be present during resort construction and use. This is reflected in the VTM, with the cliff area system shown as a potential existing condition. The only feature of the future resort within the boundary of the cliff area remediation project is the amphitheater, so concurrent operation would delay the use of this proposed amenity.

5.3.2 Development Footprint

Approximately 75 percent of the Site has been previously disturbed with grading, roads, tanks, pipelines, other industrial infrastructure, and non-industrial operation activities. The redevelopment Project footprint may occupy up to 36 percent of the Project Site (18 percent buildings, roads, and coastal trail; and 18 percent resort landscaping), leaving 64 percent of the Site as open space, maintained vegetated open space, and natural habitat (see Figure 5-3a, *Development Footprint Comparison*).

Figure 5-3b, *Building Envelopes*, illustrates the portion of the Project Site where vertical development, such as buildings, may occur. This is referred to as the "building envelope" and is primarily within the remediation limit of grading. All buildings will be constructed within the "building envelope." On-grade improvements such as roads, landscaping, amphitheater, and paths may be located outside the "building envelope" along existing roads and paths and previously disturbed areas. See Figure 5-3b, for the proposed building envelope locations.

Redevelopment Project Land Use Figure 5-4a, *Proposed Land Use,* represents the land uses that are envisioned for Avila Point and are the basis of the redevelopment project for purposes of CEQA evaluation. The proposed land uses allow for a resort project with lodging accommodations, resort facilities (such as lobby, spa, restaurant, meeting rooms, and support functions), open space, and roads. The Proposed Land Use figure illustrates the location of uses, roads, parking, and open space:

- Resort Lodging
- Resort Facilities
- Scout House Area – Meeting Rooms
- Roads and Parking
- Open Space

Refer to Figure 5-4b, *Redevelopment Site Plan* for a conceptual site plan that corresponds to the Land Use Concept, and Table 5-1.

5.4 PROPOSED REDEVELOPMENT PROJECT

The proposed Project includes land uses, which will be permitted on the Project Site by the amended Avila Beach Specific Plan. The future developer will be able to rearrange project components within the development envelope consistent with the amended Specific Plan development standards and design guidelines. Such rearrangements may be approved by the County in reliance on the EIR without additional environmental review, so long as they do not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects analyzed for the proposed Project. If the future developer proposes changes to the Project beyond the scope evaluated in the EIR, further CEQA review of those changes may be required.

The future developer will prepare the ultimate design and apply for permits (Minor Use Permit(s) and building permits), to construct the resort structures and facilities on the Project Site. If needed, the future developer may provide supporting information to demonstrate that the proposed land uses do not have environmental impacts exceeding those identified in the EIR. The permit applications will be reviewed by the Planning Department for consistency with the amended Avila Beach Specific Plan and EIR evaluation.

The proposed redevelopment Project is summarized below in Table 5-1.

Table 5-1 – Redevelopment Project

Resort Lodging and Facilities	Resort Facilities Total Building Area (sq. ft.)	Total Building Area (sq. ft.)	Building Footprint (sq. ft.)	Access: Resort Guests and Public
Resort Lodging (132 Vacation Rental and 100 Hotel Units)		268,200	134,100 *	
Resort Facilities				
Resort Center Common Areas	12,000			
Resort Guest Services	6,000			
Dining	7,000			x
Retail	4,000			x
Public Meeting Rooms	7,000			x
Fitness and Pool Buildings (may be in more than one location)	12,000			
Spa Facilities	8,000			x
Back-of-House Operations (may be in more than one location)	20,000			
Other (Gate House)	2,000			
SUB TOTAL	78,000	78,000	58,000 *	
TOTAL		346,200	192,100	
Scout House Area				
Meeting Rooms		4,500	4,500	
OPTIONS IN LIEU OF 4,500 sf MEETING ROOMS:				
• If multi-family residential 10,000 sf [1] (10 units)				
• If office 7,000[2] sf				
• If retail 1,000 sf with 3,500 sf meeting rooms[3]				
• If package plant/desalination plant - 7,800 sf/TBD				
SUB TOTAL		4,500	4,500	

Notes:

**Buildings are anticipated to be a mix of 1-2 story structures. Therefore, the footprint square feet is smaller than the total building area square feet.*

The square footage numbers have been provided as maximum building sizes (not footprint) allowed under each land use.

Square feet totals above do not include unconditioned space which may accommodate basement level areas (storage, mechanical, parking), pools, decks, and outdoor spaces.

The Specific Plan Amendment customizes the allowable land uses for the Avila Point District including the uses identified above (i.e. the provision of Office).

[1] Assumed footprint of 5,000 sf

[2] Assumed footprint of 3,500 sf

[3] Assumed footprint of 4,500 sf

Chevron consulted with resort experts to identify an economically feasible project. Based on this consultation, the proposed resort project includes multiple low-profile one- and two-story buildings that are a maximum of 35 feet tall and include amenities such as a restaurant, pool, spa, meeting rooms, and fitness center available to serve hotel guests and portions serving the community at large.

5.4.1 Project Components

Resort Lodging

Resort lodging accommodations consist of a combination of vacation rental and hotel units.[6] The proposed project allows for the lodging to be all vacation rental units, all hotel rooms, or a combination of the two as long as the sizes and impacts of the other resort facilities are reduced accordingly.

Resort Facilities

The Land Use Site Plan shows three areas for the resort facilities. The largest area includes a resort center with common areas and guest services. The resort center area will also include dining (food and beverage), retail, meeting rooms, spa, pool area, "back of house" functions, and outdoor areas for dining, or small gatherings. Gatherings might include weddings, Chumash ceremonies, and/or family reunions. A second area will include a spa, a second pool, fitness club, food and beverage, tennis courts, picnic area, and other outdoor recreation such as a children's play area. A third area includes "back of house" uses including resort offices, employee areas, storage, laundry, maintenance, housekeeping, trash collection and recycling, receiving, and mechanical facilities.

The project may divide the spa and fitness facilities between the first two resort center areas as long as the total square footage is not exceeded.

Resort Center Common Areas and Guest Services

The resort center common areas and guest services include spaces for resort guest use such as lobby, reception, concierge, circulation areas, and other services for resort guests.

Dining (Food and Beverage)

The restaurant use will be for guest use and open to the public and include a three-meal restaurant, bar/lounge, kitchen, and office.

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[6] Resort lodging overnight structures will be one or two stories tall and will consist of two to six accommodation units per structure. Vacation rental units will be a maximum of 1,350 square feet and have a maximum of two bedrooms. Hotel units will be a maximum of 900 square feet and be a one-room unit or a suite. For purposes of impact analysis in this Draft EIR, an estimate of 2.8 persons per two-bedroom unit (the resort industry standard density assumption) is used for vacation rental units and 1.8 for hotel units.

Retail

The retail component is intended to cater to resort guests but be open to the public by providing souvenirs, food, and sundries.

Public Meeting Rooms

Meeting space is included as an additional resort amenity. This space could be one large meeting room with partitions when a smaller space is needed or it could be divided into multiple meeting rooms. Meeting rooms may be used by resort guests or as rental spaces for use by the public.

Fitness and Pool Buildings

The fitness center and pool amenities may be located in more than one area within the resort facility's land use areas in Figure 5-4b, but not larger than the square footage outlined in Table 5-1. These amenities will be accessible to resort guests only.

Spa

The Project will include a full-service spa to serve resort guests and be open to the public. The spa area may include amenities such as reception lobby, storage, spa lounge/ recovery area, treatment rooms, and a manicure/pedicure salon.

Back of House

These facilities are divided between the resort center structure(s) and a separate area as identified on Figure 5-4b.

Scout House Area

In the Scout House area, a meeting facility is proposed either as a standalone meeting facility (separate from the resort) or as part of the resort for use by resort guests or as rental spaces for use by the public. Meeting rooms represent the land use that could potentially have the greatest traffic impact for CEQA analysis.

Four options are also proposed for the Scout House area, each of which is described for the purposes of CEQA evaluation (see Figure 5-4c, *Redevelopment Options for Scout House Area* and Table 5-1). Each option may be implemented instead of the proposed 4,500 square foot meeting room and will provide the associated parking within the Scout House area.

- Multi-family Residential Units

  The multi-family residential option could accommodate market rate housing, senior housing, senior living facility/nursing and personal care, or workforce housing for the

resort uses and other visitor-serving uses in Avila. These will be two- to three-story attached residential units. This could be a stand-alone use unrelated to the resort or as part of the resort use.

- Office

  The office building option could be a stand-alone use or a secondary use to the resort. It could be a one- or two-story building with associated parking.

- Retail and Meeting Rooms

  This option is for a combination of retail and office. The retail is envisioned to be a small space and possibly standalone or associated with the meeting room. A conceptual building layout is shown in Figure 5-4c, but could be one combined or two small buildings and either one or two stories. This facility could be used as a community meeting area or by a Chumash non-profit group.

- Wastewater Treatment Package Plant and Desalination Plant

  This option is to provide a small package waste water treatment plant and a desalination plant to serve the Avila Point property in lieu of the ABCSD or San Miguelito Mutual Water Company servicing the Avila Point. The anticipated layout for this option is shown in Figure 5-4c. See Sections 5.7.1 and 5.10.2 for additional details regarding equipment and operations.

Roads and Parking

Vehicular access, circulation, and parking will be provided as shown in Figure 5-5, *Circulation and Access*. The roads and parking facilities total approximately 5.2 acres, with paved roads comprising approximately 130,000 square feet of the total area and the parking areas about 97,000 square feet. Several internal roads are proposed to allow a limited number of electric and service vehicles to access rooms and transport patrons around the Site. Circulation has been designed to park cars off of Avila Beach Drive and minimize traffic through the town of Avila Beach. There are three larger parking areas, the Avila Beach Drive parking area, the Cave Landing Road entrance parking area, and another parking area under the resort center. There will also be small pockets of parking throughout the resort as needed.

For the Scout House area, four options are proposed with different parking and circulation areas. The estimated paved areas for roads and parking for each of the proposed options are:

- Multi-family Residential Units paved area (12,000 square feet)
- Office paved area (14,000 square feet)
- Retail and Meeting Rooms paved area (14,000 square feet)
- Waste Water Treatment Package Plant and Desalination Plant paved area (TBD)

Gate House

Approximately, 2,000 square feet of "other" space has been provided as potential area for a gate/shuttle house at the main Project entry.

Maintained Revegetated Open Space

Maintained Revegetated Open Space includes areas that may be disturbed during the remediation and Project redevelopment process and revegetated. These areas will be regularly maintained as part of the resort. Uses such as trails, amphitheater, and trellis or gazebo may be provided within this area.

Natural Open Space/Bluff Open Space/Woodland

This area includes natural open space, bluff open space, and oak woodland. Section 5.8 categorizes these areas into the following "Landscaping and Revegetation Zones":

- Natural Open Space Zone
- Woodland Zone
- Bluff Open Space Zone

Uses such as trails, amphitheater, and trellis or gazebo may be provided within this area.

5.4.2 Resort Amenities

Walking Paths

Walking paths will be provided to link resort guests and visitors to various amenities within the resort. Access gates along walking paths are not anticipated. These informal paths are intended to be narrow paths with a natural surface such as decomposed granite, crushed shell, or other similar material. Wider, nonporous walking paths may be provided in areas where high levels of foot traffic are anticipated.

Coastal Trail

The Project will include a coastal bluff trail that completes a missing piece of the California Coastal Trail. This ±0.6 mile (±3,000 square foot) segment will be open to the public, allowing people to traverse the Site from the terminus of Front Street at San Rafael Street to Cave Landing Road. This trail will provide public access to a portion of the coast that has been restricted for over a century.

Overlook Area

The Site overlook area is the southern point of land that provides a 180+ degree view of the coast. The Project will exclude resort buildings from this area and keep it open for views, walking paths, viewing areas, benches, and/or a gazebo or similar unoccupied structure.

The open space area south of the overlook will be restricted access to be used for Native American ceremonies. Additionally, it is envisioned that the overlook area will also be available periodically for exclusive use for Native American ceremonies.

Amphitheater/Open Area on Lower Terrace

An amphitheater/gathering area is included as part of the Project along the lower terrace above the cliffs. This area will be accessible from the Coastal Trail and open to the public. Informal events that can accommodate up to 100 people, such as educational talks, unamplified music and theater, picnics, fitness instruction, and other similar low-noise activities, will be permitted to take place at this location. Public use time restrictions will be limited to sunup/sundown.

Recreational Amenities

The Project includes provisions for recreational amenities for resort guests only such as tennis courts, a second swim and fitness club, and picnic area. These amenities are envisioned to be located within the Resort Facilities area, shown in Figure 5-4b, in the northwest portion of the property, which is in a valley between the two hills.

5.5 Development Standards and Design Guidelines

The Avila Beach Specific Plan amendment will establish development standards that regulate height, signage, setbacks from public roadways, and parking. The amendment will also include a section on design guidelines for architecture, site planning, sustainability/green building, and landscape architecture.

5.5.1 Height

- Building height shall be a maximum of 35 feet tall (as measured from finished grade per the Specific Plan Amendment).

5.5.2 Building Setbacks

- Building setbacks measured from back of right-of-way
    - Avila Beach Drive – 10 feet minimum
    - San Rafael Road – 30 feet minimum
    - San Luis Street – 30 feet minimum
    - Cave Landing Road – 30 feet minimum

5.5.3 Signs

- One monument sign per entry is permitted.
    - Height = 12 feet high maximum
    - Square Feet = 100 square feet maximum
- Directional signs may be provided as needed.

5.5.4 Wetland Setbacks

Setbacks measured from edge of verified wetland:

- Setbacks from Buildings – 100 feet
- Setbacks from Roads – 50 feet
- Setbacks from Parking – 50 feet

5.5.5 Parking

The Avila Beach Specific Plan amendment will include customized parking standards for the Avila Point District to supplement the existing County parking standards (CZ LUO 23.04.166 c). The concept for the Project is to be as car-free as possible.

As illustrated in Figure 5-4b, the majority of cars will be parked at the primary Project entrance along Avila Beach Drive and visitors will be shuttled to the resort. By locating the parking lot off of Avila Beach Drive, vehicular traffic is captured before entering downtown Avila and visitors will disconnect from their car during their stay in Avila Beach. This concept promotes a sustainable approach to future redevelopment and allows for more green open space on the coastal portion of Avila Point rather than paved parking lots.

Supplemental parking areas are planned near the secondary Project entry from Cave Landing Road and at the resort center. These supplemental parking lots may be used by restaurant and spa guests not staying at the resort, as well as employee parking.

The resort center is planned to include a minimum of 10 surface spaces, 30 subterranean spaces, and 22 back-of-house spaces. The total estimated disturbed area for the upper and lower surface parking lots is 97,000 square feet. Additional spaces may need to be located at lodging units if parking cannot be completely accommodated by the upper and lower parking areas. To determine the required number of parking spaces, the future developer will be required to refer to the Avila Beach Specific Plan for the Avila Point District and apply the following parking standards:

Resort

- 2 spaces per resort/hotel (2 spaces minimum requirement for a hotel)
- + 1 space per unit
- + 0.5 space per two-bedroom unit
- + 1 space per 10 units (for employees and guests)

Spa

- 1 space per 300 square feet
- + 2 spaces per salon station

Dining and Retail

- Retail – 1 space per 300 square feet
- Restaurant – 1 space per 60 square feet
- Bar/Lounge – 1 space per 60 square feet

Meeting

- Meeting room – 1 space per 60 square feet

Scout House Area

- Meeting Room - 1 space per 60 square feet
- Options:
  - Multi-family Residential – 2 spaces per dwelling unit
  - Senior Housing – 1 space per dwelling unit
  - Senior Facility/Nursing and Personal Care - .04 space per unit
  - Office – 4 spaces per 1,000 square feet
  - Retail – 1 space per 300 square feet
  - Package Wastewater Treatment Plant and Desalination Plant – none, provided that efficient usable area is available to accommodate all employee and visitor vehicles entirely onsite.

5.5.6 Parking Reduction

As multiple uses are proposed, the County permits a 20 percent parking count reduction, which may be applied to the total number of parking spaces (CZ LUO 23.04.162.d). Valet parking may also be employed to increase the parking efficiency and decrease the amount of paved area needed.

5.6 Circulation and Access

Circulation has been designed to minimize traffic through the town of Avila Beach (see Figure 5-5). Vehicular circulation and access for the Site will be provided by approximately 130,000 square feet of paved roads in the following categories.

5.6.1 Site Access

Primary Resort Entrance

Primary resort access will be through an entrance south of the Avila Beach Drive/Cave Landing Road intersection. This access may include a gatehouse for guests to check in and then be shuttled up to the resort.

Service and Secondary Entrance

Service and secondary access will be near the existing Project Site entrance along Cave Landing Road. This access will allow for employee, service, limited restaurant parking, spa, and

emergency vehicles to enter the Site. A supplemental parking lot may be located near this access point.

Emergency Access

Two emergency access points are proposed along the western boundary of the Site, including at the terminus of Front Street and at the terminus of 1st Street. These access points may include removable bollards or other similar features that will prohibit through traffic yet allow for bicycle and pedestrian use.

Scout House Access

The Scout House area is accessed off of San Luis Street. This access does not connect to the rest of the site and will be used only for the Scout House use.

5.6.2 Site Circulation

There are approximately 360,000 square feet of existing roads and paved areas within the Project Site. Approximately 51,280 square feet of roads will be constructed within the existing road corridor footprints. However, the top portion of the site is being graded for remediation and site drainage prior to construction of new roads. These new roads are illustrated in Figure 5-5, and are described as follows:

Resort Center Access

Resort Center Access road will extend from Cave Landing Road to the resort center. This road includes a 20-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-6, *Resort Center Access (1-1), VTM Road A*).

1st Street Emergency Access

1st Street Emergency Access extends from 1st Street to Secondary Access A. This road includes a 20-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-7, *1st Street Emergency Access (2-2), VTM Road B*).

Front Street Emergency Access

Front Street Emergency Access extends from Front Street to the intersection with Secondary Access B. This road includes a 16-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-8, *Front Street Emergency Access (3-3), VTM Road C*).

Secondary Access A

A Secondary Access Road will connect the Resort Center Access road to the 1st Street Emergency Access road. This road includes a 20-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-9, *Secondary Access A (4-4), VTM Road B*).

Secondary Access B

Two Secondary Access B roads will extend within the resort area. The first will extend from the resort center to the intersection with Front Street Emergency Access. The second will provide access to units off of the Secondary Access A road. This road includes a 16-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-10, *Secondary Access B (5-5), VTM Road C)*.

East Loop Road

The East Loop Road will extend from the Resort Center Access Road to the Secondary Access A Road. This road includes a 12-foot-wide paved surface with 2-foot-wide shoulders (see Figure 5-11*, East Loop Road (6-6), VTM Road E*). This path is for bikes, pedestrians, and golf cart type vehicles or a one-way vehicle travel lane.

Oak Woodland Carriage Road

The Oak Woodland Carriage Road will extend from the lower parking lot adjacent to Avila Beach Drive up through the Oak woodland to Secondary Access A Road. This path includes an 8-foot paved surface with 1-foot-wide shoulders (see Figure 5-12, *Oak Woodland Carriage Road (7-7), VTM Road F*). This path is for bikes, pedestrians, and golf cart type vehicles.

5.6.3 Community Emergency Access

Emergency access from the Site out of Avila will be consistent with the CAL FIRE Evacuation Plan.

5.6.4 Bike and Pedestrian Access

Resort guests are encouraged to use the resort circulation roads to traverse the Site with bikes and on foot. Additional natural surface trails may also be provided within scenic portions of the property, such as on existing paths through the oak woodlands open space, and through the resort.

5.6.5 Coastal Trail

This +/- 0.6-mile segment of the California Coastal Trail will be open to members of the public, allowing them to traverse the Site from the terminus of Front Street at San Rafael Street to Cave Landing Road. This Coastal Trail will be 8 feet wide (see Figure 5-13, *Coastal Trail (8-8)*) and may include amenities such as lighting (with night sky shielding), seating, trash receptacles, and signage.

5.7 UTILITIES AND SERVICE SYSTEMS

A list of utilities and their providers is described below.

5.7.1 Water and Wastewater

The Project Site is within the ABCSD service area and near the San Miguelito Mutual Water Company (SMMWC) service area. This Draft EIR analyzes water and wastewater service by one of these local purveyors or a combination of both.

The design basis for water and wastewater requirements and infrastructure for Avila Point, including water use and storage, fire flow, and wastewater generation rates, includes:

Avila Point Water Usage:	100 AFY
Commercial Fire flow needed:	2,500 gpm for 3 hours
Residential Fire flow needed:	1,500 gpm for 3 hours
Total Fire Water Storage Required:	2,500 x 3, or 450,000 gallons
Wastewater Average Daily Flow	70,000 gpd

ABCSD owns and operates two aboveground steel water tanks on the Project Site, a 690,000-gallon tank and a 165,000-gallon tank. These tanks provide the water storage for ABCSD to serve the town of Avila Beach. ABCSD has access and maintenance easements for the tanks. The Project proposes to remove the onsite ABCSD system and to reestablish the storage system to another location onsite or offsite. An onsite location is proposed on the VTM; the offsite location is still being determined.

The onsite tank provided in this Project Description for the purposes of CEQA evaluation will involve an aboveground steel tank or new underground concrete tank located approximately 170 feet northeast of the existing 690,000-gallon tank site, adjacent to a proposed road in the northerly portion of the Project Site. For this option, a booster pump will be required to provide the proposed ABCSD system with pressures equivalent to the existing ABCSD system and to serve the higher elevations of the Site.

The Project also includes an option for an onsite package wastewater treatment plant at the Scout House area (see Scout House Area in Section 5.4.1) in lieu of wastewater treatment by service providers.

Water

The onsite water system for the Project is proposed as a main line piping distribution network in the general alignment of the Project road system in conformance with County of San Luis Obispo engineering standards. The water system is anticipated to route to a connection provided by one of the local purveyors, such as ABCSD or the SMMWC. The water system point of connection will vary depending on which water purveyor will be supplying water to the Project.

The ABCSD water system connection will be at one of two locations, the intersection of Front and San Rafael Streets or the intersection of 1st Street and San Rafael Street. The dual connection will provide a looped system with more consistent pressures than a single connection.

The San Miguelito water system connection will start at the intersection of Avila Beach Drive and San Luis Street, where it will be installed under Avila Beach Drive and San Luis Creek by directional drilling. The waterline will cross the San Luis Creek at a point just west of the existing Golf Cart Bridge then proceed northwest to a southerly tree line edge. From this point, two alternatives are provided for routing and connections (see Figure 5-14, *Water and Wastewater Routing Alternatives*) via trenching across the golf course or within Blue Heron Drive.

The Project also includes an option for an onsite desalination plant at the Scout House area (see Scout House Area in Section 5.4.1) in lieu of water distributed by service providers.

Wastewater

The wastewater system for the Project is proposed as a main line gravity distribution network in the general alignment of the proposed road system in conformance with County of San Luis Obispo engineering standards. The wastewater system will connect to an offsite larger conveyance system operated by the ABCSD or the SMMWC or, if these existing facilities are not able to serve the Project, an onsite package wastewater treatment plant will be provided.

The onsite sewer will consist of 8-inch gravity lines that flow to an onsite sewer lift station located on the west side of the Site. The lift station will pump the wastewater to the package wastewater treatment plant.

For ABCSD, the point of connection will be at the intersection 1st and San Rafael Streets.

For SMMWC, the point of connection will be in Blue Heron Drive via the same routes as described for the SMMWC water alternatives.

For the optional onsite package wastewater treatment plant option, it is anticipated that the plant will be located in the current Scout House area as shown in Figure 5-4c. Sewage from the lift station will be pumped directly into the plant through a forced sewer main as shown in 5-4c, *Redevelopment Options for Scout House*. The plant will include five 50,000-gallon, pre-engineered, pre-fabricated, modular, biofiltration-based treatment tanks along with associated equipment and controls. It will be designed to comply with the National Science Foundation (NSF) Standard 350 effluent discharge limits for onsite reuse.

Under normal circumstances, the treated water will be reused onsite for irrigation through a distribution network. During periods of wet weather or system upsets, the effluent may be discharged into the sewer main along Avila Beach Drive. The plant will be an automated

system that will require minimal operation and maintenance. On average, a single operator will conduct a daily visit to the plant for inspection and routine maintenance.

5.7.2 Other Services

It is assumed that the dry utility services will connect to existing infrastructure along San Rafael Street. With the possible exception of the PG&E power transmission lines routed through the Project Site, onsite dry utility services will be placed underground to the service connection.

Electricity and Gas

Electricity and gas are provided to Avila Beach by PG&E and Southern California Gas Company, respectively.

Cable Televisions

Cable television services are provided to the Avila area by Charter Cable.

Telecommunications

Telecommunication services are provided to the Avila area by AT&T.

Solid Waste Disposal

Municipal solid waste in the Avila area is collected by a private company, South County Sanitary Services, and hauled to the Cold Canyon Landfill.

Drainage

The Project will implement Low Impact Design (LID) solutions while minimizing infiltration due to remediation requirements. Storm water is to be discharged through two existing outfalls (see Figure 5-15, *Post Development Hydrology - Watershed*). Outside of the developable area, storm water will be managed through continuous gravity drained open swales and conventional storm drain piping. Open channels and swales will be vegetated to provide treatment and filtering of runoff.

Runoff from the westerly 750 feet of VTM Road C will continue to drain into the existing 18-inch-diameter outfall structure located offsite near the Front Street and San Rafael Street intersection. Within the developable area, a combination of open channel and piping will be used to convey water to the discharge location. BMPs will be employed throughout the system to ensure discharge complies with applicable water quality standards and County Development Standards.

Storm runoff from the major portion of the Project Site will collect in an existing storm water basin. Prior to entering the basin, storm water runoff will be treated through a drainage swale and a hydrodynamic separator to remove debris and oil. The storm water basin will only detain the storm water runoff to manage the peak flow. The existing 24-inch-diameter outfall

structure, which discharges on the bank above the Pacific Ocean, will be redesigned with a more efficient pipe system of the same size.

A small portion of the entrance road will sheet flow into an existing drainage located near Cave Landing Road and flow toward the Ocean. The upper parking area will sheet flow into an existing drainage near the entrance and heading toward Avila Beach Drive. The lower parking area will continue to flow into a 24-inch culvert under Avila Beach Drive and into San Luis Creek. The drainage under Avila Beach Drive will be upgraded by installing an additional 24-inch culvert under Avila Beach Drive.

It is anticipated that the 95th percentile storm, along with the 25-year and 50-year peak post-redevelopment storms, will be managed in the existing lower storm water basin. After redevelopment, the portion of the Project Site that is impervious area will be reduced to 3.18 acres as compared to the existing impervious area of 13.11 acres. This improvement will reduce the 2-, 5-, 10-, 25-, 50-, and 100-year storm runoff as compared to the existing condition.

5.8 LANDSCAPING AND REVEGETATION PLAN

The Project Site is divided into five categories of landscape zones to clearly delineate the boundaries in which a certain planting palette should be used and to group plants with similar water requirements. The categories are summarized below and shown in Figure 5-16a, *Landscaping and Revegetation Zones*. Trees planted for mitigation purposes may be integrated into the planting palette within any of these zones (see Figure 5-16b, *Potential Tree Mitigation Areas*).

Resort Landscaping Zone

The Resort Landscaping Zone includes approximately 45 percent of the Site and generally includes irrigated, formal and informal planting areas located throughout the resort area. Emphasis will be on revegetation of native and low-water use species.

Resort Maintained Revegetated Open Space Zone

The Resort Maintained Revegetated Open Space Zone includes approximately 7 percent of the Site and includes areas that may be disturbed during the remediation and Project redevelopment process and revegetated. Emphasis will be on revegetation with California native and low-water use species. Irrigation may be necessary for up to five years. These areas will be regularly maintained as part of the resort, but less manicured than the Resort Landscaping areas. Uses such as trails, amphitheater, and trellis or gazebo may be provided within this area.

Natural Open Space Zone

The Natural Open Space Zone includes approximately 6 percent of the Site with disturbed and undisturbed areas, such as coastal scrub areas along the bluffs and woodland areas along the

hillside and northern portion of the Site. The areas disturbed during the remediation process will be vegetated with California native and low-water use species. Uses such as trails, amphitheater, and trellis or gazebo may be provided within this area.

Woodland Zone

The Woodland Zone includes approximately 11 percent of the Site including the oak woodlands that are primarily located on the north facing hillside adjacent to Avila Beach Drive. This zone includes the potential woodland path (also named Oak Woodland Carriage Road) that connects the lower parking area to the resort center. While most of this zone is envisioned to remain natural, it is possible to supplement the landscape with additional trees and shrubs to continue to support the oak woodlands. Irrigation within this zone beyond initial planting is not anticipated.

Bluff Open Space Zone

The Bluff Open Space Zone includes approximately 31 percent of the Site and is located along the southern coastal bluffs. This zone includes many of the same species as the Natural Open Space Zone. Minimal planting is expected in this zone except where infill is needed. New plantings should focus on bluff stabilization. Irrigation may be provided to establish the root systems of new plantings.

Areas Dominated by Hydrophytic Vegetation

Feature 7 is located adjacent to Avila Beach Drive, around the entrance to a culvert. The remediation activities do not currently need to directly impact this feature. As discussed in Section 4.4.4, required mitigation for impacts to verified wetlands due to the Project is proposed for an offsite mitigation bank area (see Figures 4-19b and 4-19c).

The Avila Beach Specific Plan amendment includes setback requirements for areas dominated by hydrophytic vegetation features, and a plant list and a plant palette for each of the five categories based on the County-approved Plant List 2014.

5.9 ENGINEERING AND INSTITUTIONAL CONTROLS IMPLEMENTATION

Proposed institutional and engineering controls will be described in detail in the RAP, included in future site planning and building design, and developed in consultation with the RWQCB as part of the final remedial actions to be taken before remediation is deemed complete. Industry standard controls are available, as these are typical issues faced by development in petroleum-related properties throughout California (e.g., Los Angeles, Huntington Beach). Since future development is designated for previously disturbed areas of the site, as discussed in Section 4.4.5 the regulatory agencies have approved the use of engineering and institutional controls that are commonly used to manage these conditions.

Institutional controls are typically recorded on the property deed to inform future owners of residual contamination makeup and location along with any actions that are prohibited or

required. For instance, in most areas, onsite groundwater is contaminated by LNAPL and the future owner will be prohibited from extracting the groundwater for use in these areas. Institutional controls may also be established to specify allowable uses in designated areas of the Site, in this case commercial, office, industrial or open space only on the upper Site area and meeting rooms, office, multi-family, commercial, or package wastewater treatment plant and desalination plant on the Scout House area.

Engineering controls will be required for any potentially occupied buildings or structure constructed in areas where vapors from residual contamination may be generated. Typical examples of engineering controls include raised foundations, sub-grade vapor barriers, and active ventilation systems (see Figures 5-17a, *Vapor Barrier Engineering Examples* and *5-17b Vapor Barrier Engineering Examples*).

The specific requirements for Engineering Controls will be established through local ordinance, or in consultation with the RWQCB. For areas where habitable structures may be located, post-remediation soil gas sampling will be conducted per a work plan submitted to the RWQCB prior to beginning the sampling work. Based on sampling results as outlined in the work plan, land use covenants requiring engineering controls will be recorded for future buildings to be located in specific areas. Approval of the land use covenants will be coordinated through the RWQCB.

5.10 REDEVELOPMENT CONSTRUCTION

This section discusses the anticipated activities associated with construction of the Project. As part of the initial remediation phase, Chevron will install backbone infrastructure, roads, and fine grading in preparation for redevelopment of the Site. A future developer will design the redevelopment buildings and utilities per the Avila Beach Specific Plan standards and guidelines and apply for Minor Use Permit(s) and building permits (grading, construction, encroachment) from the County.

Construction activities for both infrastructure installation and vertical construction of the future development are included in the Project Description for impact analysis purposes. Construction of the redevelopment component has been divided into five phases to provide flexibility to accommodate market conditions at the time of implementation and sale. Phased construction could occur concurrently in a short time frame or over a longer duration and may be implemented in any sequence (i.e., Phase 1 may not be completed first).

For CEQA evaluation purposes, an anticipated time frame for each of the five phases has been provided (see Table 5-2D for infrastructure installation and Table 5-3C for vertical construction). A phasing scenario for relative timing of infrastructure construction, vertical construction and resort operations is provided in Figure 5-18, *Redevelopment Phasing Scenario*. Construction activities are discussed in the following sections.

5.10.1 Resort Infrastructure Construction

Mobilization

Mobilization will consist of bringing construction equipment and support facilities onsite as needed. The anticipated equipment transported to the Site during mobilization includes portable structures to be used on a temporary basis, such as a construction trailer(s), portable restrooms for workers, and storage containers as well as construction equipment. Temporary fencing will be installed as needed in each work location.

Staging

Staging areas will be approximately 100 feet by 150 feet and be located within the remediation grading area on the top of the site. As feasible, staging areas will be set back at least 100 feet from the edge of the coastal bluff. The staging area on the lower parking near Avila Beach Drive lot will be within the grading footprint of the parking lot.

Site Access

Redevelopment construction access will primarily be from Cave Landing Road. Work associated with the lower parking area will be accessed from Avila Beach Drive. Minimal access will be required along San Rafael Street to construct utility connections if the Project is served by ABCSD. Access points will have provisions to reduce tracking dirt onto public roads by construction vehicles. An estimate of construction vehicle trips is provided in Table 5-2C, *Redevelopment Infrastructure Construction Truck Trip Summary*.

Grading Activities

Minor grading will be required for road and utility construction. Grading will be in accordance with County of San Luis Obispo requirements, and a Storm Water Pollution Prevention Plan (SWPPP) with erosion control measures will be prepared and submitted to the RWQCB. For CEQA evaluation purposes, an estimate of the grading volume and equipment use during construction is provided in Tables 5-2B and 5-2D, E, and F, respectively. Depending on market conditions at the time of construction, all of the phases may be constructed concurrently or phases may be staggered, with construction occurring over an extended timeframe.

Roads

Road grading may consist of over excavating the road bed, recompacting the subgrade material, and placing and compacting new road base. Road grading assumes the finished remediated surface will be within 0.5 foot of the proposed finished surface. Base import assumes 8 inches of road base for each road. Road base will be imported as needed to establish a sound road foundation. An asphalt travel surface will be installed on top of the base material. Areas beyond the road limits will not be disturbed except for utility construction. Water trucks will spray road surfaces periodically throughout the day to reduce dust. A summary of estimated water use is provided in Table 5-2A, *Redevelopment Infrastructure Water Usage Summary*.

Utilities

The Project Description includes two water and sewer providers, ABCSD and SMMWC, to potentially serve the Project. Utility connections for both providers are shown on the VTM. The point of utility connections for ABCSD is along San Rafael Street. The point of connection for the SMMWC will be east of the San Luis Street and Avila Beach Drive intersection. Additional offsite improvements, as shown in Figure 5-14, will be required to complete the SMMWC connection. Table 5-2C, *Redevelopment Infrastructure Construction Truck Trip Summary*, and Table 5-2E, *Redevelopment Infrastructure Total Vehicle Trip Summary,* summarize the anticipated offsite construction truck trips and construction personnel vehicle trips.

Utilities are generally planned to be constructed within travel ways. When necessary, deep excavations will be fenced off to protect workers from harm. California Division of Occupational Safety and Health (Cal/OSHA) regulations will be observed onsite at all times. Temporary stockpiles of soil from excavations will be located near the excavation, will be covered and bermed to prevent erosion during rain events, and will be maintained to prevent dust.

Utilities under roads will be stubbed out for future connections. Stubbing out utility service lines includes connecting smaller lines from the main line to just beyond the limits of the graded road, thereby preventing the need for additional excavation of the road to supply future connections.

5.10.2 Resort Infrastructure Construction Phasing

A description of the work to be conducted during Phases 1 through 5 of infrastructure construction is provided below. As each area is graded, erosion control measures will be implemented in accordance with the SWPPP.

Infrastructure Construction Phase 1

Phase 1 includes construction of:

- VTM Roads A, B, C, and F
- Coastal Trail
- Utilities from the point of connection to Lots 1 through 5
- Improvements for Lots 1 through 5

VTM Roads A, B, C, and F will provide access to new Lots 1 through 5 and a conduit for utility construction. VTM Roads A and B are planned to be 20 feet wide. VTM Road C will be 16 feet wide, and VTM Road F will be 10 feet wide. Roads will have an asphalt surface over a Class II aggregate base.

Coastal Trail construction will require minor excavation. It is anticipated that smaller tractor equipment and hand tools will be used to prepare the trail. The Coastal Trail surface will consist of compacted decomposed granite providing a stable all-weather surface. The trail will

be 8 feet wide where feasible, but steep terrain along the bluff alignment will make steps and narrower widths necessary in some areas. Educational and directional signs and trail markers will be installed.

Utility connections to ABCSD will be provided along San Rafael Street at Front Street and 1st Street. The Front Street connection will be the primary connection for both sewer and water; however, this location is within the 75-year bluff erosion limits. Therefore, the connection for ABCSD is proposed farther inland at 1st Street. This location will require a lift station for the sewer connection, which is proposed as part of Phase 1 improvements.

Utility connections to SMMWC will include a sewer force main from the onsite lift station at Road C to a point in Road B, just east of the west intersection of Road D, then east along Road D to an existing access road. The line will continue northwest along the access to Avila Beach Drive. Additional offsite improvements dedicated to the SMMWC will be required to complete the connection. The SMMWC water connection will follow the sewer force main path beginning in Road D and continuing offsite across Avila Beach Drive and San Luis Creek to Blue Heron Drive. The SMMWC connection options are shown in Figure 5-14.

Improvements for Lots 1 and 2 include parking for the entire Project. Lot 2 will also include utility service connections for the resort and resort service facilities, also called “back of house.”

Lot 3 will be an open space lot with minor construction to manage storm water discharge through the basin and outfall piping constructed during remediation and Site grading. Lot 3 also includes installation of storm drain, water, and sewer line infrastructure. Existing Road C in Lot 3 will require minor grading and a new asphalt layer.

Lot 4 is an open space lot, which will have minor construction for a waterline to the parking area in Lot 2.

The access for Lot 5 is from San Luis Street. Water and sewer service for Lot 5 will be provided by ABCSD unless a package wastewater treatment plant option is constructed.

Four optional uses are also proposed for Lot 5. Three of these options (office, retail with meeting rooms, and multi-family residential), will have similar infrastructure and construction requirements as described for the meeting rooms in the proposed Project.

For the fourth option (onsite package wastewater treatment plant and desalination plant), the infrastructure and construction are described below.

The onsite wastewater plant piping will be connected to the onsite lift station at VTM Road C. The sewer main will be constructed from the lift station at VTM Road C to a point in Road B, just east of the west intersection of VTM Road D, then east along Road D to an existing access road, along the access road, and then down the slope to the Scout House Area. Treated water will return to the resort to be used as irrigation water via a main from the plant to the irrigation network following a similar path up to VTM Road D, where it will connect to an onsite irrigation

network. A separate 6-inch-diameter discharge line will connect the plant to the offsite sewer manhole along Avila Beach Drive. The plant will include five partially buried 50,000-gallon modular biofiltration tanks, a buried vault, and a shed for controls and telemetry. The plant equipment will be enclosed within a 6-foot-high fence with privacy slats.

Detailed information regarding the desalination plant is still being developed and will be provided when available.

Infrastructure Construction Phase 2

Lot 6 construction will include grading and utility construction for future resort accommodation structures. The connection roads (VTM Roads B and F) and underlying utilities will be constructed in Phase 1.

Infrastructure Construction Phase 3

Phase 3 consists of the construction of Lot 7 and is bordered on the south by VTM Road B. Construction of VTM Road E, a 16-foot-wide access road, will begin at Road A and traverse northwest and connect to VTM Road B. No utilities are planned in VTM Road E. Lot 7 will be served from VTM Roads A and B, constructed in Phase 1.

Infrastructure Construction Phase 4

Phase 4 includes the construction of Lot 8, which is served by the previously constructed VTM Road B. ABCSD has water tanks in the area proposed for Lot 8. Grading and backbone infrastructure construction will work around these tanks, as feasible, until the tanks are relocated. Water line connections will be moved and replaced, as needed, during construction.

Infrastructure Construction Phase 5

Phase 5 includes construction of VTM Road D and utility main lines. The ABCSD water tank, currently located in proposed Lot 8, will be relocated with Phase 5 or Phase 6 improvements. The Project includes relocation of the water tank to an onsite location in Lot 5 (see VTM); however, relocation may also be to an offsite location. If located onsite, the new tank is anticipated to be an aboveground steel tank or underground concrete tank with a booster pump located in a pump house. A description of tank construction is included in Section 5.7.1. Soils excavated for tank installation will be used for backfill around and over the tank and for onsite pads or road fill. The existing tank will be dismantled and the area graded to blend in with the surrounding grades.

5.10.3 Resort Vertical Construction

Vertical construction involves erection of the structures that will be occupied by future users of the development. As previously discussed, a future developer will design buildings and facilities per the standards and guidelines found in the Avila Beach Specific Plan. Those designs will be submitted to the County for processing of a Use Permit and all necessary building permits (e.g., grading, construction, encroachment).

Since most of the grading required for the project is accomplished during remediation or infrastructure construction, vertical construction activities generally involve the delivery of materials and their assembly. A limited amount of grading is necessary to construct foundations, prepare landscaping areas, and install paving.

This section estimates the offsite truck trips, vehicle trips, equipment usage, and water usage necessary to implement the vertical construction. The analysis assumes that industry standard methods, phasing, and materials will be used.

The analysis includes the following principal tables:

- Summary of Estimated Water Usage (Table 5-3A)
- Estimated Schedule During Redevelopment Vertical Construction (Table 5-3C)
- Summary of Estimated Vehicle Trips During Redevelopment Construction (Table 5-3D)
- Estimated Equipment Usage During Redevelopment Vertical Construction (Table 5-3E)
- Estimated Earthwork Quantities (Table 5-3G)

This section also contains a number of supporting tables, described in the following paragraphs, illustrating how the information in the key tables has been developed. This includes the phasing and schedule assumed for the project and the methodology used to estimate the equipment, manpower, and material deliveries that will be needed.

Activities common to each phase of construction will include the following.

Mobilization

Site mobilization will consist of bringing construction equipment and support facilities onsite as needed. Portable restrooms will be provided for workers.

Locations of the staging areas and access points will vary depending on the phase being constructed and the contractor. Prior to construction, the contractor will be required to submit a SWPPP, which will identify staging areas and access points.

Equipment that will be used during vertical construction is summarized in Table 5-3E, *Redevelopment Vertical Construction Estimated Equipment Usage*. The table lists a wide range of equipment that might be used throughout the project, and indicates how many pieces of each type of equipment will be used for specific activities during each phase of construction.

Staging

Designated staging areas will be established for materials, equipment storage, and refueling as needed within the Site. Staging areas for temporary construction trailers, equipment, refueling,

and maintenance will be constructed to minimize impacts to undeveloped areas. Temporary stockpiles and access roads will be required to complete grading and construction activities.

Truck storage, maintenance, and refueling areas will be located in areas close to the focus of construction to reduce travel time and emissions. Other staging areas that include construction trailers will be more permanent due to utilities connected to the trailers. However, the time between phase developments may be such that a new or different construction trailer may be used for subsequent phases. Silt fence or straw wattles will be used around staging areas as needed for erosion control. Staging areas will be set back from the coastal bluff.

Site Access

The principal work activities for vertical construction will be the delivery and assembly of materials. Redevelopment vertical construction access will primarily be from Cave Landing Road. Access points will have provisions such as rumble strips to reduce tracking dirt onto public roads by construction vehicles. The plates will be frequently washed and the water collected in a basin. The basin will be emptied as needed and the debris deposited in a staple non-erosive location onsite.

Vehicle trips to the site will be generated by the delivery of materials and the transportation of personnel to the site. The materials necessary for vertical construction will require delivery. The estimated material quantities, by phase, are shown in Table 5-3G, *Redevelopment Vertical Construction Estimated Quantities of Building Materials*. The estimates are based upon the heaviest likely type of construction for a given use at the Site, typical unit weights (on a square footage basis) for those types of building materials, and the program framework defined in Table 5-1. The number of truck trips required to deliver that material are estimated in Table 5-3B. The total vehicle and truck trips required for vertical construction are summarized in Table 5-3D.

Water Consumption

Water will be required during vertical construction for compaction, dust control, and to maintain landscaped areas. The estimated water usage required for each phase of construction is shown in Table 5-3A. The assumptions used to estimate the water usage are found in the table.

5.10.4 Resort Vertical Construction Phasing

Fine grading will occur prior to constructing structures or paving for a given phase. For any paving around the structures, base will be imported as needed and asphalt will be installed on top of the base material. Grading will be in accordance with County of San Luis Obispo

requirements, and a SWPPP with erosion control measures will be prepared and submitted to the RWQCB.

Resort Vertical Construction Phase 1

The Phase 1 vertical construction will include the following structures and activities:

The resort center will be a single floor Type 1 or 2 structure constructed of a steel frame with wood or noncombustible sidings. The resort core will be provided with approximately 21,400 square feet of podium/basement. The basement will be provided with a concrete slab on grade with block walls along the sides.

The "back of house" will be a single floor Type 1 or 2 structure constructed of a steel frame with wood or noncombustible sidings. The resort core will be provided with approximately 11,400 square feet of basement. The basement will be provided with a concrete slab on grade with block walls along the sides.

Lodging units (15 units) will be a two-story Type 2 structure constructed of wood and possibly steel studs.

Fitness, pool, and recreational buildings will be a single floor Type 1 or 2 structure constructed of a steel frame with wood or noncombustible sidings.

The gatehouse will be a single floor Type 2 structure constructed of a wood frame.

The meeting room building in the Scout House area will be a ground floor Type 1 or 2 structure constructed of a steel frame with wood sidings or noncombustible sidings to provide 4,500 square feet of meeting rooms.

For the first three options proposed for the Scout House area, the type and method of construction for the structures will be similar to the one described for the proposed Project. The option for multi-family residential units will be two-story Type 5 structures constructed with wood and possibly steel studs. The package wastewater treatment plant option will be constructed with infrastructure, so there is no vertical construction component for this option.

Paving and landscaping of areas associated with the various structures will also be completed during this phase.

With the exception of the basement areas, all of the proposed structures will be provided with raised foundations to mitigate potential vapor intrusion risks, in accordance with the engineering controls described in Section 5.9.

Resort Vertical Construction Phases 2 through 5

Phases 2, 3, 4, and 5 will include construction of 13, 13, 9, and 8 lodging units, respectively, and the associated paving and landscaping. Each unit will be a two-story Type 2 structure constructed of wood and possibly steel studs. The structures will be provided with raised foundations to mitigate potential vapor intrusion risks, in accordance with the engineering controls described in Section 5.9.

5.11 RESORT OPERATIONS

For CEQA evaluation purposes, a phasing scenario for timing of resort operations relative to construction is provided in Figure 5-18. Operational details are provided in the preceding sections.

Resort employees have been accounted for in the resort descriptions and standards outlined in this section and the trip generation calculations outlined in the Traffic Report (W-Trans, 2015):

- Resort square footages - Table 5-1
- Parking – Section 5.5.5
- Traffic - Resort trip generation table, Traffic Report (W-Trans 2015)

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Tables

Figures