Annex R Cayucos Sanitary District

R.1 District Profile

R.1.1 Mitigation Planning History and 2025 Process

This annex was updated in 2025 to build upon the previous version created for the 2019 San Luis Obispo Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) update. The 2019 MJHMP was not incorporated into other plans but was utilized by the Cayucos Sanitary District (CSD) to inform the construction of its own Water Resource Recovery Facility in June 2021. The Facility treats 100 percent of the sewer effluent from the community of Cayucos. Located at 800 Toro Creek Road, the WRRF and associated pipelines are no longer within the Coastal Zone nor are they subject to Coastal Hazards. Immediately adjacent to the WRRF is a 1.2MW Solar Field which provides power to the WRRF; excess power is returned to the grid.

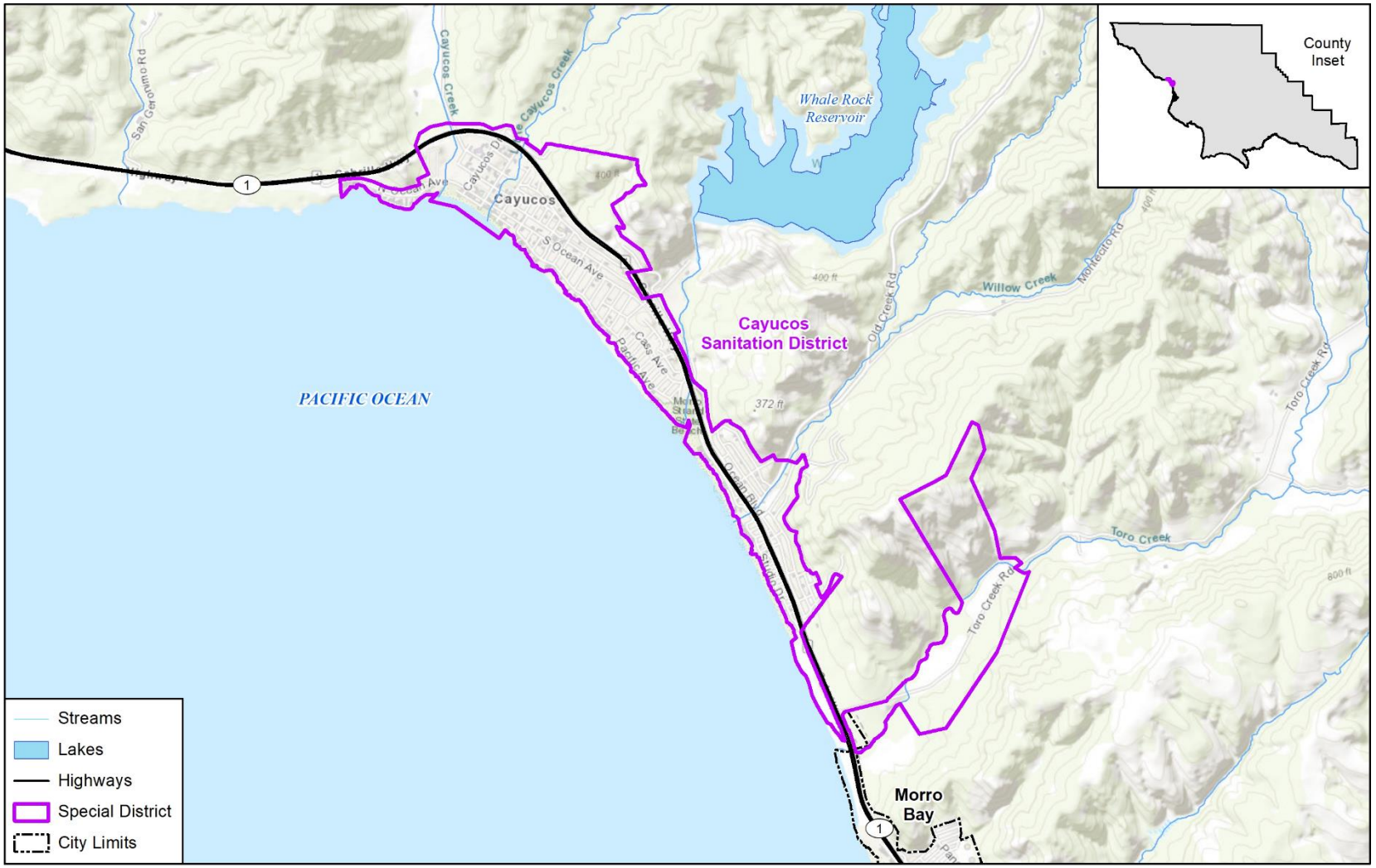
The District had representation on the County Multi-Jurisdictional Hazard Mitigation Planning Committee and utilized a Local Planning Team (LPT) subcommittee to develop input into the annex. Table R-1 shows the Cayucos Sanitary District boundaries.

Table R-1 Cayucos Hazard Mitigation Plan Revision Planning Group

	DEPARTMENT	TITLE
Local Planning Team	Administration	District Manager
	Administration	Admin Accounting Manager
	Collections	Lead Collections
	Treatment	Chief Plant Operator
Agencies involved in hazard mitigation activities:	SLO County Public Works	Supervising Engineer
Agencies that have the authority to regulate development:	SLO County Building and Planning	Division Manager
Neighboring Communities:	Morro Bay Public Works	Public Works Director
Representatives of business academia, and other private orgs:	Morro Rock Mutual Water Co	Board of Directors
	Cayucos Beach Mutual Water Co	Board of Directors
Representatives supporting underserved communities	North Coast Advisory Committee (NCAC)	

More details on the planning process and the jurisdictions, service districts, and stakeholder's participation can be found in Section 3 of the Base Plan, along with how the public was involved during the 2025 update. Figure R-1 shows the Cayucos Sanitary District's planning area.

Figure R-1 Cayucos Sanitary District



Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County

R.1.2 District Overview

Cayucos is a Census-Designated Place (CDP) located on the coast of San Luis Obispo County, along State Route (SR) 1 between Cambria to the north and Morro Bay to the south. The Cayucos Sanitary District was formed in 1942 for the purpose of constructing a sewer collection system and a treatment plant (Cayucos Sanitary District 2019). The powers and functions of the District include but are not limited to maintenance and operation of garbage dumpsites, garbage collection and disposal systems, and storm water drains. The District encompasses 0.984 square miles within the County of San Luis Obispo's central coast (Kuczynski and Sharygin 2018). In 1954, the District constructed a sewer system and treatment plant under a Joint Powers Agreement (JPA) with the Morro Sanitary District, which is now the City of Morro Bay, to create comprehensive solutions to stormwater management issues in the area (City of Morro Bay n.d.). However, in 2020 Cayucos created their own wastewater treatment facility, and now serves over 2,900 customers throughout the service district.

The Cayucos CDP had a population of 2,517 in 2023, which accounts for approximately 1.0% of the county's population. The CDP experienced a decline of 7.6% from 2,692 residents in 2018. The U.S. Census Bureau's 2023 American Community Survey provides select demographic and social characteristics for the CDP Table R-2; however, it should be noted that data is for the Cayucos CDP which may have different boundaries than the Cayucos Sanitary District's service area.

Table R-2 Cayucos CDP Demographic and Social Characteristics, 2018-2023

CAYUCOS CDP	2018	2023	% CHANGE
Population	2,692	2,517	-7.6%
Median Age	58.2	60.1	-.4%
Total Housing Units	2,461	2,394	-3.8%
Housing Occupancy Rate	94.6%	94.3%	-.4%
% of Housing Units with no Vehicles Available	2%	1.2%	+90.9%
Median Home Value	$706,600	$947,000	+46.1%
Unemployment	2.4%	1%	+25%
Mean Travel Time to Work (minutes)	26.2	37	-9.9%
Median Household Income	$82,656	$163,375	+18.6%
Per Capita Income	$43,988	$56,928	+29.6%
% of Individuals Below Poverty Level	16.8%	6%	-18.4%
# of Households	1,367	1,308	-4.1%
Average Household Size	1.97	1.92	+3.6%
% of Population Over 25 with High School Diploma	97.4%	96.2%	+1.6%
% of Population Over 25 with Bachelor's Degree or Higher	37.4%	18.2%	-25.7%
% with Disability	19.5%	15.2%	-8.8%

Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/
Note: Data is for the Cayucos Census Designated Place (CDP) which may not have the same boundaries as the Cayucos Sanitary District.

The following table show how the Cayucos CDP's labor force breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey. The most common industry is educational services and health care and social assistance with 21.7% of the population in Cayucos working in those professions. The most common occupations in

Cayucos include those in management, business, science, and arts occupations with 36.3% of the population in those positions.

Table R-3 Cayucos CPD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (16 years and over)	2,385	
In Labor Force	1,313	55.1%
Agriculture, forestry, fishing and hunting, and mining	0	0%
Armed Forces	0	0%
Construction	115	8.9%
Manufacturing	145	11.3%
Wholesale trade	57	4.4%
Retail trade	104	8.1%
Transportation and warehousing, and utilities	0	0%
Information	57	4.4%
Finance and insurance, and real estate and rental and leasing	130	10.1%
Professional, scientific, and management, and administrative and waste mgmt. services	135	10.5%
Educational services, health care and social assistance	280	21.7%
Arts, entertainment, recreation, and accommodation and food services	158	12.3%
Other services, except public administration	59	4.6%
Public administration	46	3.6%
Unemployed	25	1%

Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/

Table R-4 Cayucos CPD Employment by Occupation (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population	2,385	
In Labor Force	1,313	55.1%
Management, business, science, and arts occupations	3,011	36.3%
Service occupations	1,199	14.5%
Sales and office occupations	1,885	22.7%
Natural resources, construction, and maintenance occupations	1,264	15.2%
Production, transportation, and material moving occupations	930	11.2%

Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/

R.1.3 Development Trends

The community of Cayucos developed general community goals that were recommended by the Cayucos Citizens Advisory Council (CCAC) for the Estero Area Plan (2009). The identified community goals encourage carefully planned development that respects the area's natural assets, maintains the community's small-town beach character, and balances and promotes both the residential and visitor-serving aspects of the community. The Estero Area Plan also indicated the goal to carefully plan for future commercial and residential development that is consistent with the current nature of the community, with a focus on infill and mixed-use development.

Cayucos has a high percentage of vacant dwelling units compared to the county as a whole. This is largely due to a high level of seasonal use (about 33% of total units), which includes recreational and occasional use of dwellings. The vacancy rate in Cayucos is approximately 38% (Estero Area Plan, 2009). According to the LPT, future development trends are likely to lead to additional building of single-family residents as well as mixed use and infill development in the community.

Additionally, in 2015 the Cayucos Sanitary District voted to withdraw from the joint construction of a new Wastewater Treatment Facility with the City of Morro Bay and instead construct and operate a separate Water Resource Recovery Facility (WRRF) to solely serve the community of Cayucos, which began operation in January 2021. The relocation mitigates risk of coastal hazards including tsunami and flooding, while reducing hazard vulnerability and increasing resiliency , and is a completion of a project identified in the 2019 Plan (See Section R.5.2).

R.1.4 Other Community Planning Efforts

Coordination and synchronization with other community planning mechanisms and efforts are vital to the success of this plan. To have a thorough evaluation of hazard mitigation practices already in place, appropriate planning procedures should involve identifying and reviewing existing plans, policies, regulations, codes, tools, and other actions. These mitigation practices should incorporate reduction strategies to minimize a community's risk and vulnerability from natural hazards. The Cayucos Citizens Advisory Council works to develop a unified, cooperative effort among all individuals, organizations and public jurisdictions interested in furthering sound planning and development in the Cayucos area (Cayucos Citizen's Advisory Council n.d.). The Council was responsible for the recommendations to the Cayucos community goals to encourage the carefully planned development of the District with respect to the small-town character and area's natural assets (Mecham and Gibson 2009).

As an unincorporated community, Cayucos Sanitary District is referenced in other county planning documents and is regulated by county policies and planning mechanisms. Integrating existing planning efforts, mitigation policies, and action strategies into this Annex establishes a credible, comprehensive document that weaves the linkages of a community's values together. The development of this jurisdictional Annex involved a comprehensive review of existing plans, studies, reports, and initiatives from San Luis Obispo County and the Cayucos Sanitary District that relate to hazards or hazard mitigation, as summarized in the Table R-5. Information on how they informed the update are noted and incorporated where applicable.

Table R-5 Summary of Review of Key Plans, Studies and Reports

PLAN, STUDY, REPORT NAME	HOW THE DOCUMENT INFORMED THIS ANNEX
Estero Area Plan (2009)	Informed the geographic description and natural resources information

PLAN, STUDY, REPORT NAME	HOW THE DOCUMENT INFORMED THIS ANNEX
San Luis Obispo Safety Plan Element (2019)	Addresses a range of natural and human caused hazards and consists of goals and policies aimed at reducing the risks associated with these hazards.
San Luis Obispo County Stormwater Resource Plan (2019)	Provided background information that was incorporated into the Drought Vulnerability Assessment related to watershed planning.
County of San Luis Obispo Local Hazard Mitigation Plan (2020)	Informed past hazard event history.
San Luis Obispo County – Tsunami Emergency Response Plan (Revised April 2016)	Informed the Vulnerability Assessment for Tsunami risk
San Luis Obispo County – Community Wildfire Protection Plan (March 2019)	Informed the Vulnerability Assessment for Wildfire risk

R.2 Hazard Identification and Summary

The Cayucos Sanitary District's LPT identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to Cayucos (see Table R-6). There are no hazards that are unique to the District.

Table R-6 Cayucos Sanitary District – Hazard Summaries

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Lightening, Freeze, Hail, Dense Fog	Extensive	Likely	Critical	High
Adverse Weather: High Wind and Tornado	Extensive	Likely	Limited	High
Adverse Weather: Extreme Heat	Extensive	Likely	Critical	High
Coastal Storm/Coastal Erosion/Sea Level Rise	Significant	Likely	Limited	Medium
Dam Incidents	Significant	Unlikely	Critical	Medium
Drought and Water Shortage	Extensive	Likely	Limited	Low
Earthquake and Liquefaction	Extensive	Occasional	Limited	High
Flooding	Significant	Likely	Critical	High
Landslide and Debris Flows	Limited	Occasional	Limited	Medium
Tsunami and Seiche	Significant	Occasional	Critical	Medium
Wildfire	Significant	Occasional	Limited	Medium
Human Caused: Hazardous Materials	Limited	Unlikely	Negligible	Low

Geographic Area
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Probability of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.

Magnitude/Severity (Extent)
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.	Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact			

R.3 Vulnerability Assessment

The intent of this section is to assess the Cayucos Sanitary District's vulnerability separately from that of the planning area as a whole, which was previously assessed in Section 5 (Vulnerability Assessment) in the Base Plan. This vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area.

The information to support the hazard identification and risk assessment for this Annex was collected through a data request worksheet/workbook, which was distributed to each participating municipality or special district to complete during the original outreach process in 2025. Collected information was analyzed and summarized in order to identify and rank hazards with potential impacts in the county, as well as in each jurisdiction. In addition, the Cayucos Sanitary District's LPT was asked to validate the data that was originally scored in 2019 based on the experience and perspective of the LPT relative to the Cayucos Sanitary District.

Each participating jurisdiction was in support of the main hazard summary identified in the base plan. However, the hazard summary rankings for each jurisdictional annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction. Identifying these differences helps the reader to differentiate the jurisdiction's risk and vulnerabilities from that of the overall county.

R.3.1 Other Hazards

The following hazards identified in the base plan Hazard Identification and Risk Assessment are not identified within this jurisdictional annex due to lack of risk or insignificant anticipated impacts and are not considered further for vulnerability or mitigation actions:

- Agricultural Pest Infestation and Disease
- Biological Agents
- Subsidence

R.3.2 Assets at Risk

This section considers the District's assets at risk, including critical facilities and infrastructure, historic assets, economic assets, and growth and development trends.

R.3.2.1 Critical Facilities and Infrastructure

Critical facilities are essential in providing utility or direction either during the response to an emergency or during the recovery operation. See Section 5.2 Asset Summary of the base plan for more details on the definitions and categories of critical facilities.

An inventory of critical facilities in the District was obtained from San Luis Obispo County, the county's Local Agency Formation Commission, or LAFCO, and the Homeland Infrastructure Foundation-Level Data (HIFLD). The combined dataset as applicable to the District is provided in Table R-7 and illustrated in Figure R-2 below.

Table R-7 Cayucos Sanitary District Critical Facilities

CATEGORY OF FACILITY	FACILITY TYPE	NAME	COUNTS
Emergency Services	Fire Stations	California Department of Forestry and Fire Protection Station 11 - Cayucos Fire Station	1
		Cayucos Fire Protection District	1
	Emergency Medical Service Stations	California Department of Forestry and Fire Protection Station 11 - Cayucos Fire Station	1
Total			3

Source: San Luis Obispo County Planning and Building, LAFCO, HIFLD

Additional critical facilities as identified by the Cayucos Sanitary District LPT are as follows. Note that their estimated replacement value is indicated as well as the possible hazards to which they are at risk.

- Sewer Conveyance System - $55 million (at risk of flooding and earthquakes)
- Sewer Lift Stations - $25 million (at risk of flooding and earthquakes)
- Water Resource Recovery Facility -$55 million (at risk of flooding and earthquakes)

R.3.2.2 Transportation Systems and High Potential Loss Facilities

No critical transportation facilities were noted for the District, though there may be certain structures or entities important to the District particularly along the main corridor running through the District (Highway 1) or other major nearby transportation lines (e.g. Highway 41). The District is served by a network of local roadways, and Highway 1 and Old Creek Road provide regional access to the District.

No high potential loss facilities such as power plants were identified by the county, HIFLD dataset, or the LPT. However as will be noted under the Human Caused Hazards section of this annex as well as in Section 5 of the Base Plan, several Hazardous Materials (HazMat) incidents have occurred in or in close proximity to the District, so there is a history of hazardous spills or incidents in/near the community.

R.3.2.3 Historic and Cultural Resources

The Cayucos Sanitary District has no registered state or federal historic sites; however, locally designated historic sites are detailed in the Estero Area Plan. These include the Cayucos Pier, which was built in 1874, and the Captain James Cass House Complex, which was built in 1876 by the founder of Cayucos, James Cass. The James Cass House Complex is located on Ocean Avenue in proximity to the Cayucos Pier. The historic property designation includes the adjacent barn, tank house, and cooler building.

R.3.2.4 Natural Resources

Natural resources are important to include in benefit-cost analyses for future projects and may be used to leverage additional funding for projects that also contribute to community goals for protecting sensitive natural resources. The natural topography of the Cayucos coastline varies from low bluffs and coastal terraces to sandy beaches backed by low-lying areas. The District includes a portion of the Estero Bluffs State Park, which preserves the scenic coastline and rich diversity of habitats. The Estero Bluffs are characterized by marine and intertidal habitat,

coastal foredune, coastal and riparian scrub, and grasslands, which collectively provide habitat for numerous native and endangered species.

The Cayucos community also has approximately five acres of neighborhood and community park space utilized for passive and active recreation for residents (Mecham and Gibson 2009). Additionally, a portion of the Monterey Butterfly habit site in Cayucos has been frequented by large numbers of butterflies for a number of years and is a significant habitat site in the state for monarch butterflies. The butterflies cluster in a small area on a mixture of eucalyptus and cypress trees growing along a creek bed close to a residential area. Awareness of natural assets can lead to opportunities for meeting multiple objectives. For instance, preserving riparian areas protects sensitive habitat and attenuates and stores floodwaters.

R.3.3 Estimating Potential Losses

This section details vulnerability to specific hazards and if applicable, jurisdictional differences from that of the overall county. Impacts of past events and vulnerability to specific hazards are further discussed below. (See Section 5 Hazard Identification and Risk Assessment of the base plan for more detailed information about these hazards and their impacts on San Luis Obispo County as a whole.)

R.3.3.1 Adverse Weather: Thunderstorms/Heavy Rain/Lightning/Dense Fog/Freeze

Adverse Weather in Cayucos includes hail, windstorms, and thunderstorms. Heavy rainfall events affect the District annually, and the community's proximity to the Pacific Ocean exacerbates adverse weather compared to inland communities. Such events can induce other hazards such as flooding. Overall, adverse weather hazards have been rated by the LPT as being **high** significance for the District. The tables below show key climate variables such as extreme temperatures, precipitation totals, and the frequency of specific weather events. Note that the Morro Bay Fire Department weather station is the nearest official reporting site to Cayucos Sanitary District. Refer to Section 5 of the Base Plan for information on past adverse weather events in San Luis Obispo County.

Table R-8 Morro Bay Fire Department Climate Summary Table – Weather (Period of Record: 02/03/1959 - 12/31/2015)

SUMMARY PERIOD	MONTHLY MEAN MAXIMUM TEMP.	MONTHLY MEAN MINIMUM TEMP.	DAILY EXTREME HIGH TEMP	DAILY EXTREME HIGH DATE	DAILY EXTREME LOW TEMP	DAILY EXTREME LOW DATE	MAXIMUM TEMP. ≥ 90˚F MEAN # DAYS	MINIMUM TEMP. ≤ 32˚F MEAN # DAYS
Winter	62.7˚F	43.4˚F	89˚F	1/17/1976	22˚F	12/22/1990	0	3
Spring	63.8˚F	46.1˚F	100˚F	4/7/1989	28˚F	3/4/1969	0.3	0.1
Summer	66.0˚F	52.3˚F	94˚F	8/28/1962	39˚F	6/14/1992	0	0
Fall	68.3˚F	50.2˚F	106˚F	10/4/1987	31˚F	11/28/1989	1.4	0.1
Annual	64.9˚F	47.8˚F	106˚F	10/4/1987	22˚F	12/22/1990	1.8	3.6

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

Table R-9 Morro Bay Fire Department Climate Summary Table – Precipitation (Period of Record: 02/01/1959 - 03/30/2025)

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECIP. 1 DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. ≥ 1.00 IN. MEAN # DAYS
Winter	8.43 in.	19.91 in.	1969	2.09 in.	1964	3.7 in.	1/1/2006	2.1
Spring	4.48 in.	21.01 in.	1995	0.3 in.	1959	8.82 in.	3/11/1995	1
Summer	0.17 in.	1.82 in.	2015	0 in.	1959	1.82 in.	7/19/2015	0
Fall	2.53 in.	6.58 in.	1982	0.13 in.	1980	2.1 in.	10/17/2016	0.5
Annual	15.65 in.	34.63 in.	1983	3.95 in.	2013	8.82 in.	3/11/1995	3.8

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

R.3.3.2 Adverse Weather: High Wind and Tornado

The Cayucos Sanitary District has rated high wind and tornado events as a **high** significance hazard due to its coastal exposure, vulnerability of critical infrastructure, and the increasing frequency and intensity of storms in the region. The planning area is situated directly along the Central Coast, so the district is subject to strong onshore winds.

Cayucos is subject to strong southeasterly winds associated with strong cold fronts and coastal storms, which generally occur during the winter months from November to February. Northwesterly winds that are typical of the central coast of California also occur throughout San Luis Obispo during the spring and summer. Both southeast and northwest wind events can reach sustained wind speeds of 35-45 mph with wind gusts of 65-75 mph.

The district's wastewater infrastructure is located near the shoreline, making it more susceptible to wind-driven storm surges and coastal weather impacts. Additionally, the combination of wind and heavy rain can exacerbate localized flooding. While tornadoes are rare in the county, the EF1 tornado that struck Los Osos in February 2024 demonstrates that tornadoes are possible.

R.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **medium** significance hazard for the Cayucos SD. The monthly mean maximum fall temperature for the Morro Bay Fire Department, the closest NOAA weather station to the district, is 68.3˚F; however, temperatures up to 106˚F have been recorded (see Table R-8). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

High temperatures place stress on sewer lines and equipment, potentially causing pipes to expand and contract, which can lead to cracks or joint failures, especially in older systems. Equipment in treatment plants and lift stations are also vulnerable to overheating if cooling systems fail. Additionally, warmer temperatures increase biological activity in sewer lines, accelerating the production of hydrogen sulfide gas which can corrode metal infrastructure.

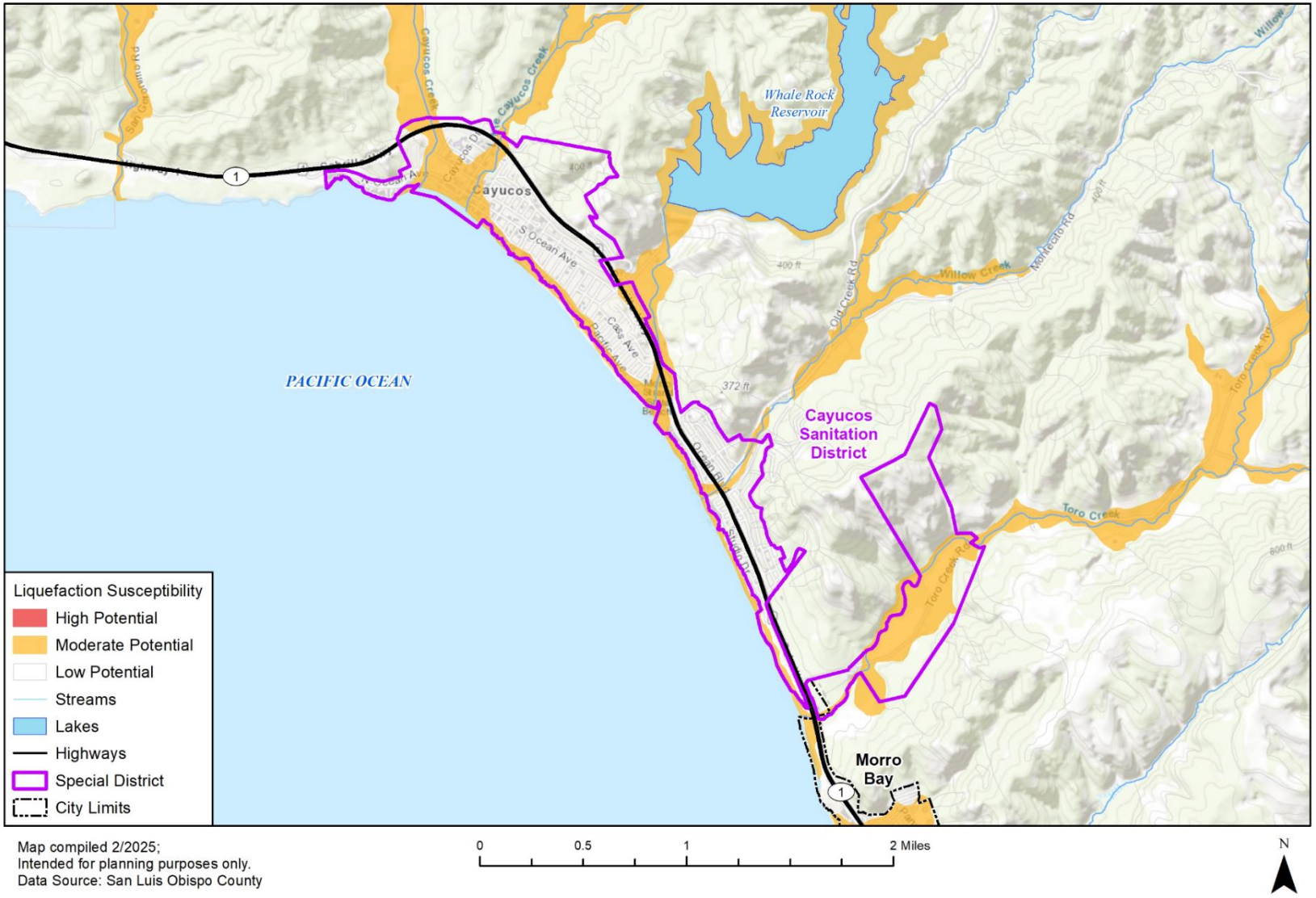
Extreme heat can disrupt the efficiency of wastewater treatment processes, especially those like Cayucos which rely on biological systems like membrane bioreactors that require precise temperature control to function optimally. Heat also increases the need for energy to cool facilities and maintain equipment performance, which can strain the district's power systems, particularly during peak demand periods. The solar power input utilized by Cayucos can overheat and reduce energy output in periods of extreme heat. Additionally, residential water use may increase during heatwaves, raising inflow to the sewer system and potentially overwhelming capacity.

Public health and safety are also at greater risk during extreme heat events. Higher temperatures can lead to more frequent blockages and sewer overflows, especially when combined with power outages that may disable pump stations. Field crews and plant operators face increased risk of heat-related illnesses while working outdoors or in enclosed spaces with poor ventilation.

R.3.3.4 Earthquake and Liquefaction

The central coast region of California has a long history of damaging earthquakes. Large earthquakes can originate from the San Andreas fault system or any of the other active faults that cross San Luis Obispo County and ground shaking can potentially affect District-owned buildings and infrastructure. Soils in the low bluffs and along riparian corridors of Cayucos are subject to moderate liquefaction risk due to seismic activity. Structures on liquefiable soils indicated in Figure R-2 below may be subject to increased damage. Damages to facilities and infrastructure from seismic activity or liquefaction could also impede the ability of the District to perform its core functions, with an extended downtime impacting the recovery of the wider community and San Luis Obispo County as a whole. Overall, earthquake and liquefaction hazards have been rated by the LPT as holding **high** significance for the District.

Figure R-2 Liquefaction Risks in Cayucos



R.3.3.5 Flood

The District is susceptible to flood hazards primarily due to its coastal location and the presence of nearby waterways, including Cayucos Creek, Little Cayucos Creek, Toro Creek and Willow Creek. These creeks can overflow during significant storm events, leading to localized flooding. Additionally, the District's proximity to the Whale Rock Reservoir introduces potential risks associated with dam failure, which could result in downstream flooding along the Old Creek channel.

In January and February 2017, the District experienced substantial flooding due to multiple storm events. These events caused approximately $30,000 in infrastructure damage. To mitigate the financial impact, the District secured $26,847 in federal and state disaster relief funding. These incidents underscored the need for improved flood resilience and infrastructure upgrades within the District.

Recognizing the vulnerabilities exposed by the 2017 floods, the District initiated the Cayucos Sustainable Water Project (CSWP) in 2018. This project aimed to construct a new Water Resource Recovery Facility (WRRF) located inland, away from coastal floodplains. The inland location was strategically chosen to reduce the facility's exposure to coastal flooding and sea-level rise, thereby enhancing the District's resilience to future flood events. The CSWP included the installation of advanced wastewater treatment technologies and infrastructure designed to withstand flood events. Notably, the project involved the construction of twin 1,100-foot crossings of Toro Creek using horizontal directional drilling. This method minimized environmental impact and ensured the integrity of pipelines in flood-prone areas. The WRRF became operational in 2021, replacing the previous treatment plant located in a coastal floodplain.

Beyond infrastructure improvements, the District has focused on maintaining and enhancing its stormwater management practices. Efforts include regular maintenance of drainage systems and collaboration with San Luis Obispo County to address runoff and erosion concerns, particularly in areas with steep slopes that are prone to mudflows during heavy rainfall. These proactive measures aim to mitigate the impact of stormwater runoff and reduce the risk of localized flooding.

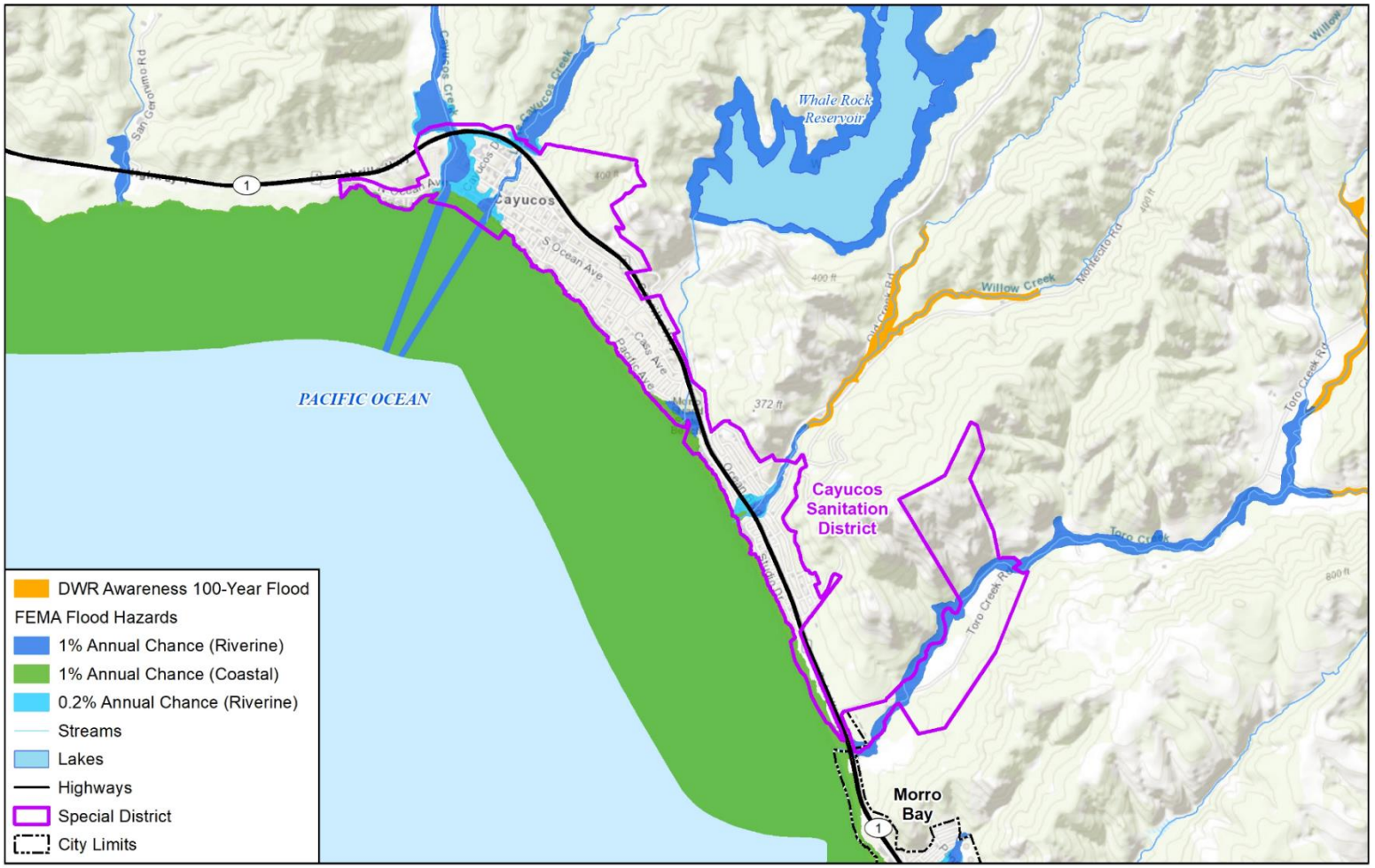
The District continues to support San Luis Obispo County's participation in the National Flood Insurance Program (NFIP). By aligning with the County's NFIP compliance efforts, the District contributes to broader regional flood risk management strategies. This collaboration ensures that residents and property owners within the District have access to flood insurance and are informed about flood risks and mitigation measures.

Figure R-3 shows the FEMA flood hazard areas in the District.

In summary, the District has taken significant steps to address flood hazards through infrastructure upgrades, strategic planning, and regional collaboration. The implementation of the CSWP and ongoing stormwater management efforts demonstrate the District's commitment to enhancing resilience against flooding and protecting its community from future flood-related impacts.

Flood has been ranked as a **high** significance hazard for the District. Further information on this hazard at the county level can be found in Section 5.3.13 of the base plan.

Figure R-3 FEMA Flood Hazard Areas in Cayucos Sanitary District



Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
FEMA NFHL Effective 6/6/2024,
DWR, USACE Comprehensive Study

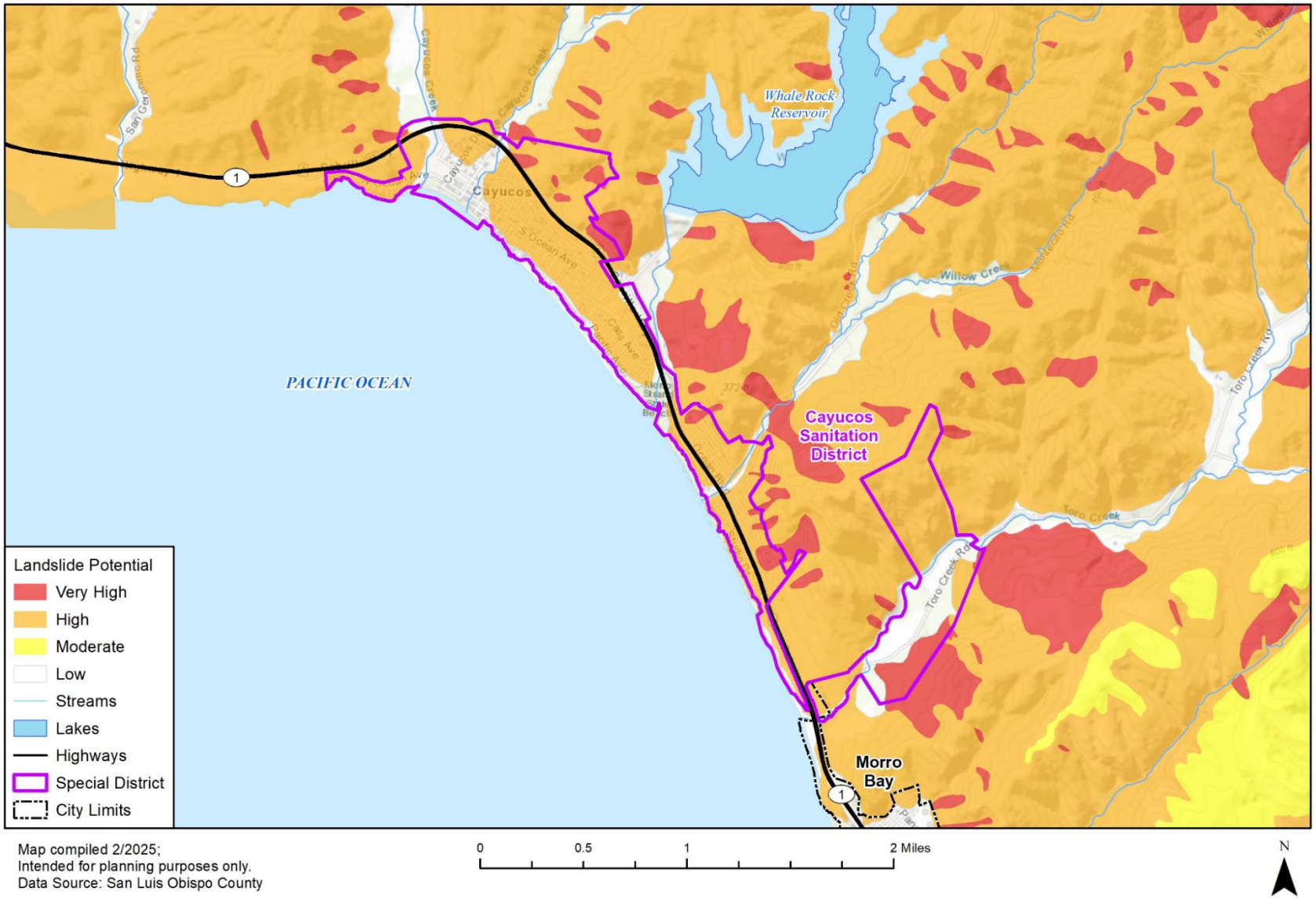
R.3.3.6 Landslides and Debris Flow

The LPT gave the Cayucos Sanitary District a **medium** overall significance rating.

Figure R-4 displays the various areas in the district subject to landslide potential. Cayucos is a coastal town located between the Pacific Ocean and the Santa Lucia Mountain Range. The areas directly east of the mountain range have a very high potential for landslides while a majority of the service district has a high potential for a landslide as shown in Figure R-4 below.

Landslides and debris flow have the potential to significantly disrupt services to the hillside communities, especially those on the south end of town. Original infrastructure in some of the undeveloped, outlying areas of the District's service area has previously been abandoned due to destruction by older landslides/earth movement**.**

Figure R-4 Landslide Potential Areas in Cayucos Sanitary District



R.3.3.7 Coastal Storm/Coastal Erosion/Sea Level Rise

The District faces ongoing challenges related to coastal storms, coastal erosion, and sea level rise, which pose significant risks to its infrastructure and community. The District's shoreline comprises narrow beaches backed by low cliffs approximately 20 feet high, as well as a low-lying downtown area near Cayucos Creek. These areas are protected by rock revetments and a low seawall, but residences with minimal setbacks from the bluff edge remain potentially exposed to coastal erosion hazards. During winter months, the sandy beach often erodes, allowing waves to strike directly against the bluffs, exacerbating erosion.

The seacliffs in the District are composed of Franciscan melanges, characterized by blocks of rocks surrounded by zones of sheared or crushed rock that erode easily. Some zones contain more erosion-resistant rock blocks that become exposed as the weaker materials erode away. Historical events, such as the intense storm waves of 1983, breached these resistant blocks in some areas, resulting in bluff recession of up to 20 feet. Rates of erosion along this coastline are highly variable, ranging from 6 to 10 inches per year. In response to the 1983 storm waves, emergency rip-rap and numerous seawalls were constructed to protect the shoreline.

Downtown Cayucos, built upon unconsolidated sediment deposited from Cayucos Creek, is particularly susceptible to shoreline erosion. During rainy months, the low permeability of the clays in the area tends to elevate the groundwater table, leading to saturated soils that cause increased erosion due to slope instability and slumping of the seacliff face. Consequently, much of the District, including low-lying areas around downtown and bluff-top homes with minimal setbacks, is classified as having a "moderate to high risk" concerning existing coastal hazards and potential future coastal flooding and accelerated bluff retreat associated with sea level rise.

The LPT has rated coastal storm, coastal erosion, and sea level rise hazards as holding **medium** significance for the District. This assessment reflects the ongoing and potential future impacts of these hazards on the District's infrastructure and community. The combination of natural geological features, historical erosion events, and the anticipated effects of climate change necessitates proactive planning and mitigation efforts to address these risks.

To address these challenges, the District has implemented protective measures such as rock revetments and seawalls to safeguard vulnerable areas. However, the effectiveness of these structures may diminish over time due to continued erosion and the increasing impacts of sea level rise. Therefore, the District recognizes the need for ongoing assessment and enhancement of its coastal protection infrastructure to ensure long-term resilience.

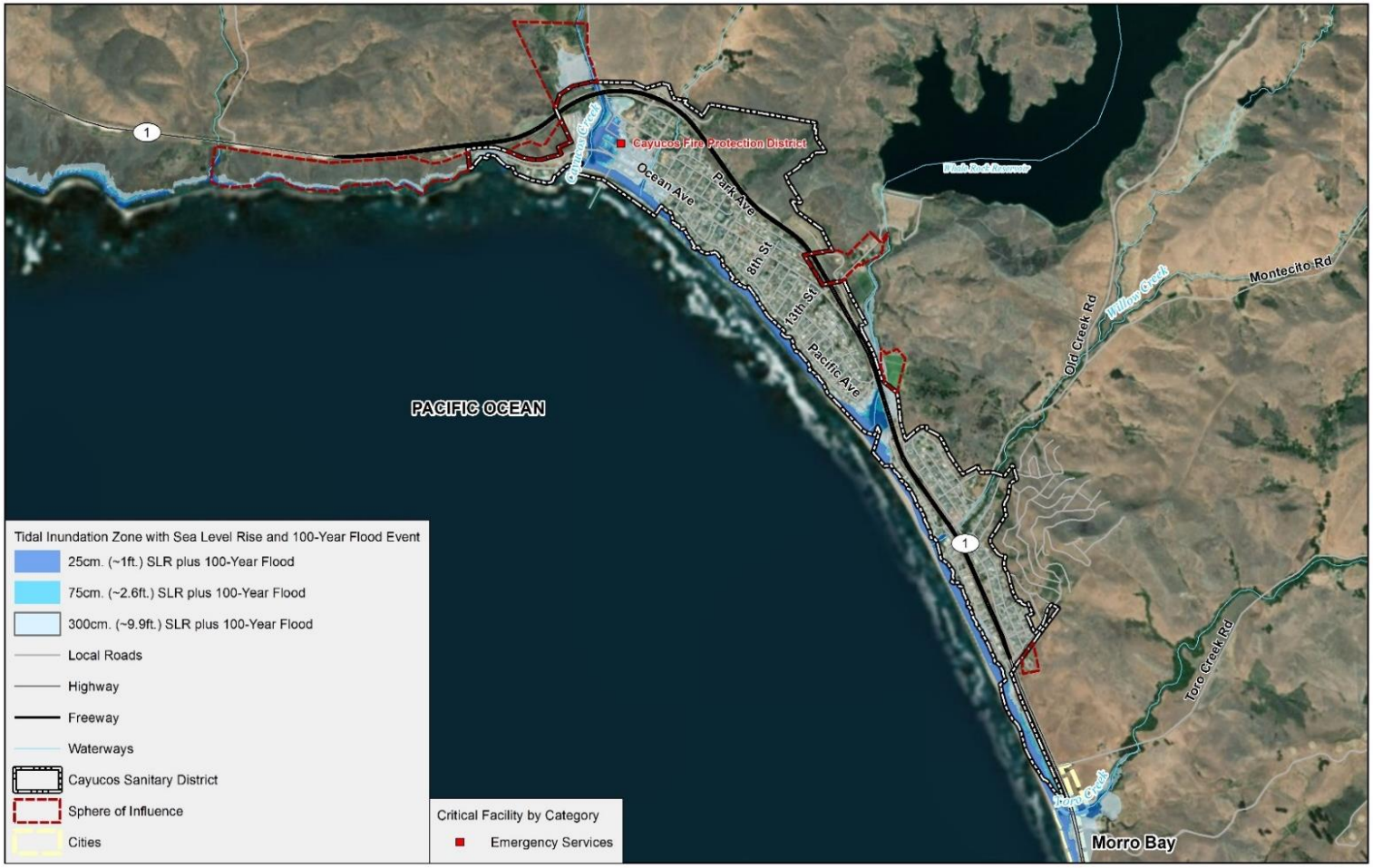
In conclusion, the District faces significant challenges related to coastal storms, coastal erosion, and sea level rise. The District's geological features, historical erosion events, and the anticipated effects of climate change contribute to its vulnerability. Through the implementation of protective infrastructure, community engagement, and ongoing assessment, the District strives to mitigate these hazards and enhance the resilience of its infrastructure and community. Continued collaboration with local, regional, and state agencies will be essential in developing and executing effective strategies to address the evolving risks posed by coastal hazards.

Figure R-5 and Figure R-6 show sea level rise scenario analysis for tidal inundation extents with and without the 1% annual chance flood. See Section 5.3.4 Coastal Storm/Coastal Erosion/Sea Level Rise in the base plan for more details on the scenarios and data sources used for this analysis.

Figure R-5 Cayucos Sanitary District Sea Level Rise Scenario Analysis: Tidal Inundation Only

Map compiled 8/2019;
intended for planning purposes only.
Data Source: USGS CoSMoS v3.1.
San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, LAFCO.
Note: SLR = Sea Level Rise

Figure R-6 Cayucos SD Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood



Map compiled 8/2019;
intended for planning purposes only.
Data Source: USGS CoSMoS v3.1.
San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, LAFCO.
Note: SLR = Sea Level Rise

R.3.3.8 Dam Incidents

The District rated dam incident a medium significance hazard. The District is downstream from Whale Rock Dam. an earth fill dam that holds 39,967 acre-feet of water, located southeast of the District. This dam presents a considerable hazard to the area given the proximity and volume of water. According to the LPT if the dam at Whale Rock Reservoir fails, everything in its path will be destroyed, including several hundred feet of Hwy 1 along with a good portion of town from 13th street south to Studio.

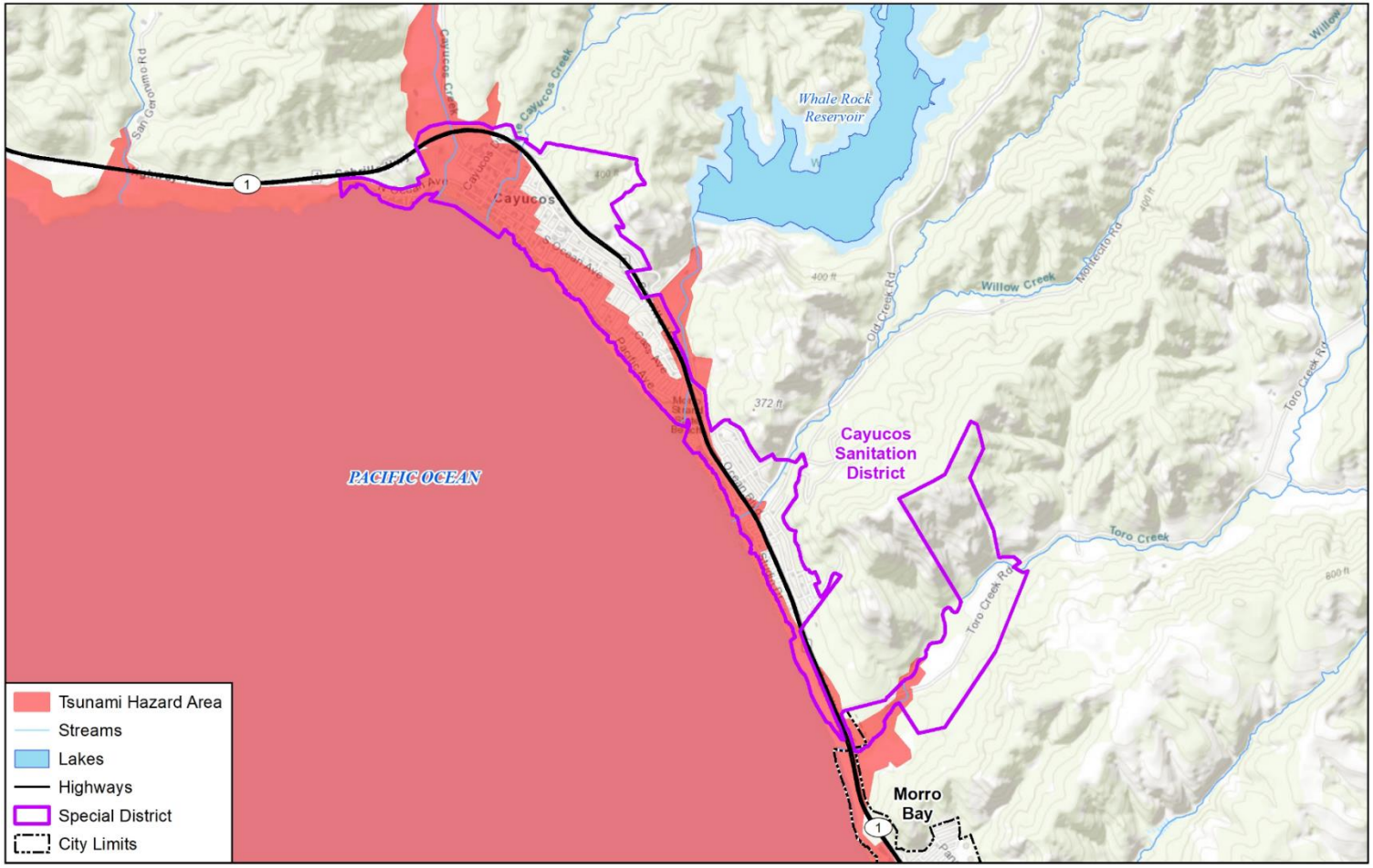
R.3.3.9 Drought and Water Supply

The LPT noted drought as a potential concern due to the widespread and regional nature of its impacts. The primary source of water for Cayucos is Whale Rock Reservoir.

R.3.3.10 Tsunami and Seiche

Tsunamis can be generated by offshore seismic activity and generate strong surges with the potential to damage and inundate coastal areas. Tsunamis generally affect coastal communities and low-lying waterways in the vicinity of the coast. Cayucos varies from narrow sandy beaches backed by undeveloped bluffs and sea cliffs to wider sandy beaches backed by relatively low-lying coastal development. This area is susceptible to wave run-up and flooding due to strong surges, including tsunamis (Figure R-7). Flooding caused by a tsunami brings with it a massive amount of pollution and debris, along with direct damage to buildings and infrastructure, which could cause catastrophic failure to the District's wastewater treatment systems. Overall, tsunami and seiche hazards have been rated by the LPT as holding **medium** significance for the District.

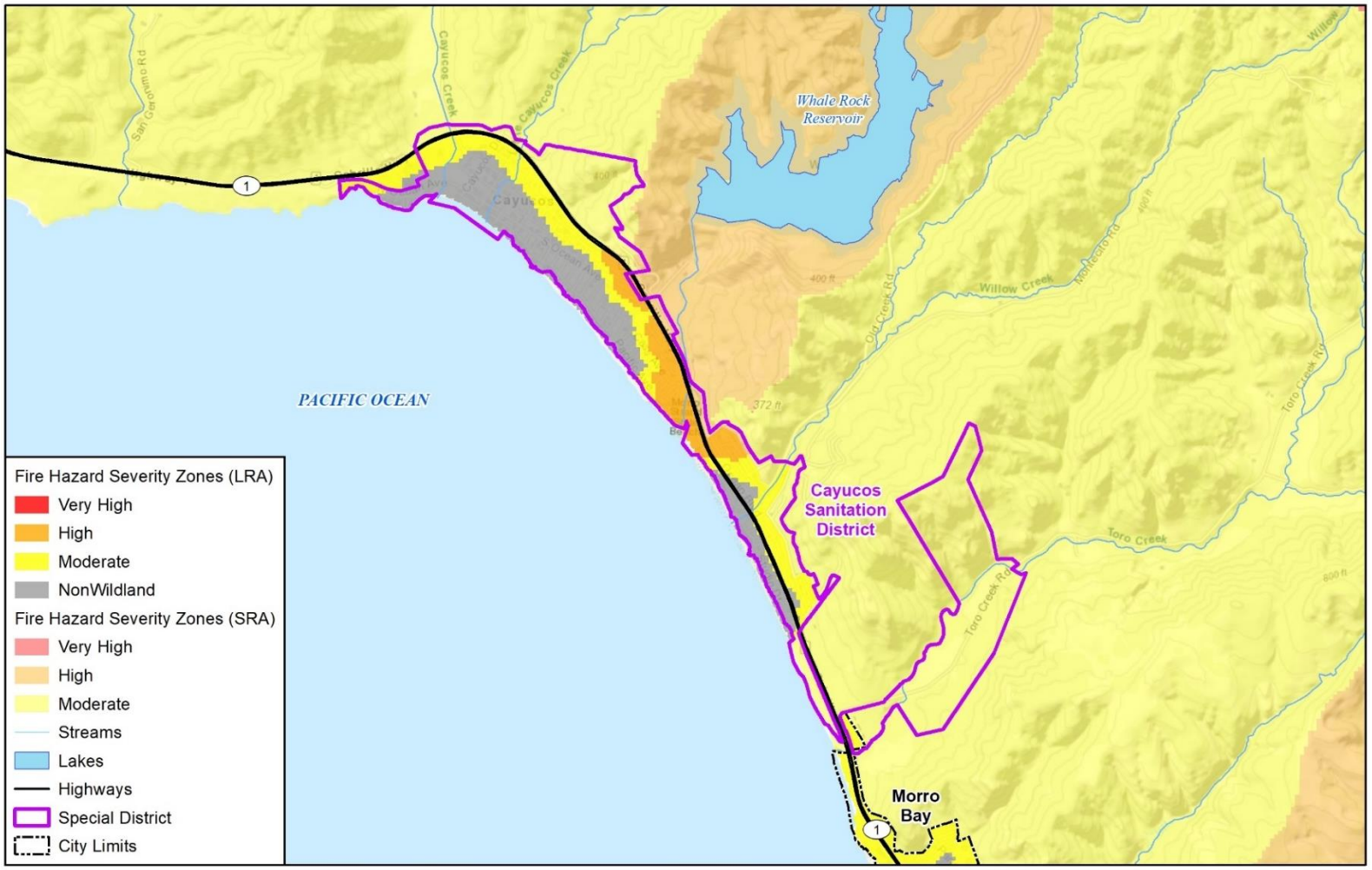
Figure R-7 Tsunami Inundation Areas in the Cayucos Sanitary District



R.3.3.11 Wildfire

The overall significance for wildfire in Cayucos Sanitary District is rated as **medium** significance. This is due to a combination of regional wildfire activity, exposure to wildland-urban interface (WUI) zones, and the district's proximity to vegetated coastal hillsides and open space areas. Periods of drought, offshore wind events, and extreme heat can temporarily override coastal moisture, elevating wildfire risk. The district's primary infrastructure is situated in more urbanized areas which could be impacted by wildfire activity. Potential impacts could mean temporary disruptions to wastewater treatment operations. Figure R-8 depicts the Fire Severity Hazard Zones for Cayucos Sanitary District.

Figure R-8 Cayucos Sanitary District's Fire Hazard Severity Zones



Map compiled 3/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County, CAL FIRE,
Phase 3 as Identified by the Office of the State Fire Marshal March 10, 2025,
FHSZSRA_23_3, FHSZLRA25_Phase3_v1

R.3.3.12 Human Caused: Hazardous Materials

The Cayucos LPT rated hazardous materials incidents as having **low** overall significance. The Cal OES Spill Release Reporting Center reports 10 hazardous materials incidents in Cayucos from January 1st, 2019 through December 20th, 2024. This likely excludes a number of unreported minor spills. The 10 reported incidents constitute 2.2% of the hazardous materials incidents reported countywide during the same time frame and average out to roughly 1.66 incidents per year.

R.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts, or that could be used to implement hazard mitigation activities. This capability assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

To develop this capability assessment, the jurisdictional planning representatives used a matrix of common mitigation activities to inventory policies and programs in place. The team supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contributed to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional planning representatives and the WSP consultant team staff to update information where applicable and identify ways in which these capabilities have improved or expanded. In summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The Cayucos Sanitary District's updated capabilities are summarized below.

R.4.1 Regulatory Mitigation Capabilities

Table R-10 identifies existing regulatory capabilities the District has in place to help with future mitigation efforts. Note that many of the regulatory capabilities which can be used for the District are within the County's jurisdiction. Refer to Section 6 Capability Assessment of the Base Plan for specific information related to the County's overall mitigation capabilities.

Table R-10 Cayucos Sanitary District Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/ NO	COMMENTS
General plan	Yes	County
Zoning ordinance	Yes	County
Subdivision ordinance	Yes	County
Growth management ordinance	Yes	County
Floodplain ordinance	Yes	County
Other special purpose ordinance (stormwater, water conservation, wildfire)	Yes	County
Building code	Yes	County
Fire department ISO rating	Yes	County/CAL FIRE
Erosion or sediment control program	Yes	County
Stormwater management program	Yes	County
Site plan review requirements	Yes	Cayucos Sanitary District

REGULATORY TOOL	YES/ NO	COMMENTS
Capital improvements plan	Yes	Cayucos Sanitary District
Economic development plan	Yes	County
Local emergency operations plan	Yes	County
Other special plans	Yes	District Sewer System Management Plan
Flood Insurance Study or other engineering study for streams	Yes	County
Elevation certificates (for floodplain development)	Yes	County

R.4.2 Discussion on Existing Building Codes, Land Use and Development Regulations

The CSD operates under San Luis Obispo County and State of California regulations, including the County's Land Use Ordinance (Title 22) for zoning and development, the Coastal Zone Land Use Ordinance (Title 23) for compliance with the California Coastal Act, and the California Building Standards Code for construction requirements. Additionally, the CSD has established its own ordinances to govern its operations and services.

R.4.3 Administrative/Technical Mitigation Capabilities

Table R-11 identifies the personnel responsible for activities related to mitigation and loss prevention in the Cayucos Sanitary District.

Table R-11 Cayucos Sanitary District Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Planner/engineer with knowledge of land development/land management practices	Yes	Contract as needed
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Contract as needed
Planner/engineer/scientist with an understanding of natural hazards	Yes	Contract as needed
Personnel skilled in GIS	Yes	County
Full time building official	Yes	County
Floodplain manager	Yes	County
Emergency manager	Yes	District on-call personnel
Grant writer	Yes	Contract as needed
Other personnel	Yes	District Operations and Maintenance
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	County
Warning systems/services (Reverse 9-11, outdoor warning signals)	No	

R.4.4 Fiscal Mitigation Capabilities

The District approves its operating budget and capital improvement & equipment budget in May for each fiscal year. Table R-12 identifies financial tools or resources that the district could potentially use to help fund mitigation activities.

Table R-12 Cayucos Sanitary District Fiscal Mitigation Capabilities

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Community Development Block Grants	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	No
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activities	No
Withhold spending in hazard prone areas	No

R.4.5 Mitigation Outreach and Partnerships

The County of San Luis Obispo conducted community outreach within the District's limits to receive feedback from stakeholders on outlined mitigation strategies within the SLO County Multi-Jurisdictional Hazard Mitigation Plan. The County of San Luis Obispo through CAL FIRE provides services to the residents of the District including Emergency Medical Response. The District utilizes the County Sheriff and California Highway Patrol for police services.

R.4.6 Other Mitigation Efforts

The LPT noted the following mitigation efforts:

- The District conducts a yearly Fats, Oils and Grease (FOG) inspection program on commercial buildings to mitigate line clogs and potential for sewer backups.
- The District offers a no-cost video inspection on private sewer laterals in order to eliminate stormwater drainage connections and leaking materials.

R.4.7 Opportunities for Enhancement

Based on the capabilities assessment, the District has several existing mechanisms in place that help to mitigate hazards. There are also opportunities for the District to expand or improve on these policies and programs to further protect the community. Future improvements may include providing training for staff members related to hazards or hazard mitigation grant funding in partnership with the County and Cal OES. Additional training opportunities will help to inform the District's staff members on how best to integrate hazard information and mitigation projects into their departments. Continuing to train staff on mitigation and the hazards that pose a risk to the District will lead to more informed staff members who can better communicate this information to the public.

R.5 Mitigation Strategy

R.5.1 Mitigation Goals and Objectives

The Cayucos Sanitary District adopts the hazard mitigation goals and objectives developed by the HMPC described in section 7 Mitigation Strategy.

R.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the Cayucos LPT reviewed all the mitigation actions from the 2019 plan. The LPT identified that one action that was completed, described in Table R-13.

Table R-13 Cayucos Completed Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
CAY.3	Adverse Weather, Coastal Storm/ Erosion/Sea Level Rise, Earthquake, Flood, Landslides and Debris Flow, Tsunami	Relocation of Cayucos/Morro Bay WRRF to mitigate risk to coastal hazards, tsunami, and flood and enhance seismic resiliency in new facility.	Cayucos Sanitary District	Completed. The Cayucos WRRF was completed in 2021. The Cayucos WRRF is located on Toro Creek Road, outside the Coastal Zone, above the 100-year flood plain, and is a 1.2 mgd Membrane Bioreactor System producing Disinfected Tertiary Water.

R.5.3 Mitigation Actions

The LPT for the Cayucos Sanitary District identified and prioritized the following mitigation actions based on the risk assessment. Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. Actions with an asterisk are those that mitigate losses to future development.

Table R-14 Cayucos Sanitary District's Mitigation Action Plan

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
CAY.1	Adverse Weather: Thunderstorm, High Wind, Extreme Heat; Coastal Storm; Dam incident; Drought and Water Supply; Earthquake; Flood; Landslides; Tsunami; Wildfire; Hazmat	Conduct a critical facility audit and monitoring plan to determine additional hazard risk and develop appropriate mitigation as applicable.	Cayucos Sanitary District Board of Directors; Cayucos Sanitary District Operations	Moderate; District Budget, HMGP	Medium	Medium-Term	In Progress. For FY 23/24, the District Board authorized a Consolidation Study to determine the feasibility of combining the 3 water companies with the Sanitary District to form a Community Services District as suggested in LafCo Municipal Services Review. This new CSD would be able to address Hazard Risks to all types of infrastructure. Unfortunately, the two private Mutual Water Companies have not responded favorably. The draft Consolidation Report is still under review.
CAY.2*	Adverse Weather: Thunderstorm, High Wind, Extreme Heat; Coastal Storm/Coastal Erosion/Sea Level Rise; Earthquake; Flood; Landslides	Implement programmed improvements to pipelines and infrastructure as indicated in the Cayucos Sanitary District Capital Improvement yearly budget with a focus to build resiliency to multiple hazards including adverse weather, earthquakes, landslides, coastal storms, and flooding.	Cayucos Sanitary District Operations; Cayucos Sanitary District Engineering and Planning	High; District Budget, California State Water Resources Control Board Wastewater Funding, Clean Water State Revolving Fund	High	Ongoing	Annual Implementation. This type of replacement/repairs are included annually in the District's CIP FY Budget. The District utilizes its own tractor camera system for pipeline inspections.
CAY.3	Coastal Storm/Coastal Erosion/Sea Level Rise, Tsunami	Sewer main replacements due to sea level rise and groundwater intrusion. As sea levels rise, ground water also rises which will infiltrate the joints of sewer lines and manholes, creating additional capacity and treatment issues. The solution would be to	Cayucos Sanitary District Engineering and Planning; Cayucos	Very High; FEMA Hazard Mitigation Assistance Grant, California Coastal Conservancy	High	Long-Term	New in 2025

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
		replace or upsize the 1950s era sewer mains and manholes with new, modern era materials.	Sanitary District Operations	Grants, In-Kind Donations			
CAY.4	Coastal Storm/Coastal Erosion/Sea Level Rise, Landslide, Tsunami	Sewer main relocations due to coastal erosion. This action is needed to relocate sewer mains away from coastal erosion areas. In some locations the bluff erosion is beginning to encroach into the road right-of-way. The solution would be to identify areas of bluff erosion and the proximity to the District's sewer mains, and ultimately to relocate the mains away from those areas.	Cayucos Sanitary District Engineering and Planning; Cayucos Sanitary District Operations	Very High; FEMA Hazard Mitigation Assistance Grant, California Coastal Conservancy – Climate Ready Program In-Kind Donations	High	Long-Term	New in 2025

R.6 Implementation and Maintenance

Moving forward, the district will use the mitigation action table in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Chapter 8 in the Base Plan.

R.6.1 Incorporation into Existing Planning Mechanisms

The information contained within this plan, including results from the Vulnerability Assessment and the Mitigation Strategy, will be used by the District to help inform updates and the development of local plans, programs and policies. This could include referencing relevant mitigation projects in the next update of the District Sewer System Management Plan. The County Planning and Building Divisions may utilize the hazard information when reviewing a site plan or other type of development applications.

As noted in Chapter 8, the LPT representatives from Cayucos will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual LPT plan review meeting.

R.6.2 Monitoring, Evaluation and Updating the Plan

The Cayucos Sanitary District will follow the procedures to monitor, review, and update this plan in accordance with San Luis Obispo County as outlined in Section 8 of the Base Plan. Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. The Cayucos Sanitary District General Manager will be responsible for representing the District in related County Hazard Mitigation Plan meetings or events, and for coordination with County staff and departments during plan updates. The Cayucos Sanitary District realizes it is important to review the plan regularly and update it every five years in accordance with the FEMA Disaster Mitigation Act Requirements as well as other State of California requirements.

Annex S Port of San Luis Harbor District

S.1 District Profile

S.1.1 Mitigation Planning History and 2025 Process

This Annex is an update to the first mitigation plan for the district which was developed during the previous 2019 San Luis Obispo County Hazard Mitigation Plan. The Facilities Manager of the Port San Luis Harbor District (District) was the representative on the county Hazard Mitigation Plan Committee (HMPC) and took the lead for developing the plan this annex in coordination with the Port San Luis Harbor District Local Planning Team (LPT). The LPT will be responsible for implementation and maintenance of the plan. The following tables summarize the District's planning team for the plan update process, as well as the various stakeholder groups, neighboring communities, and local agencies which supported or coordinated on this HMP update.

Table S-1 Port San Luis Harbor District Hazard Mitigation Plan Planning Team

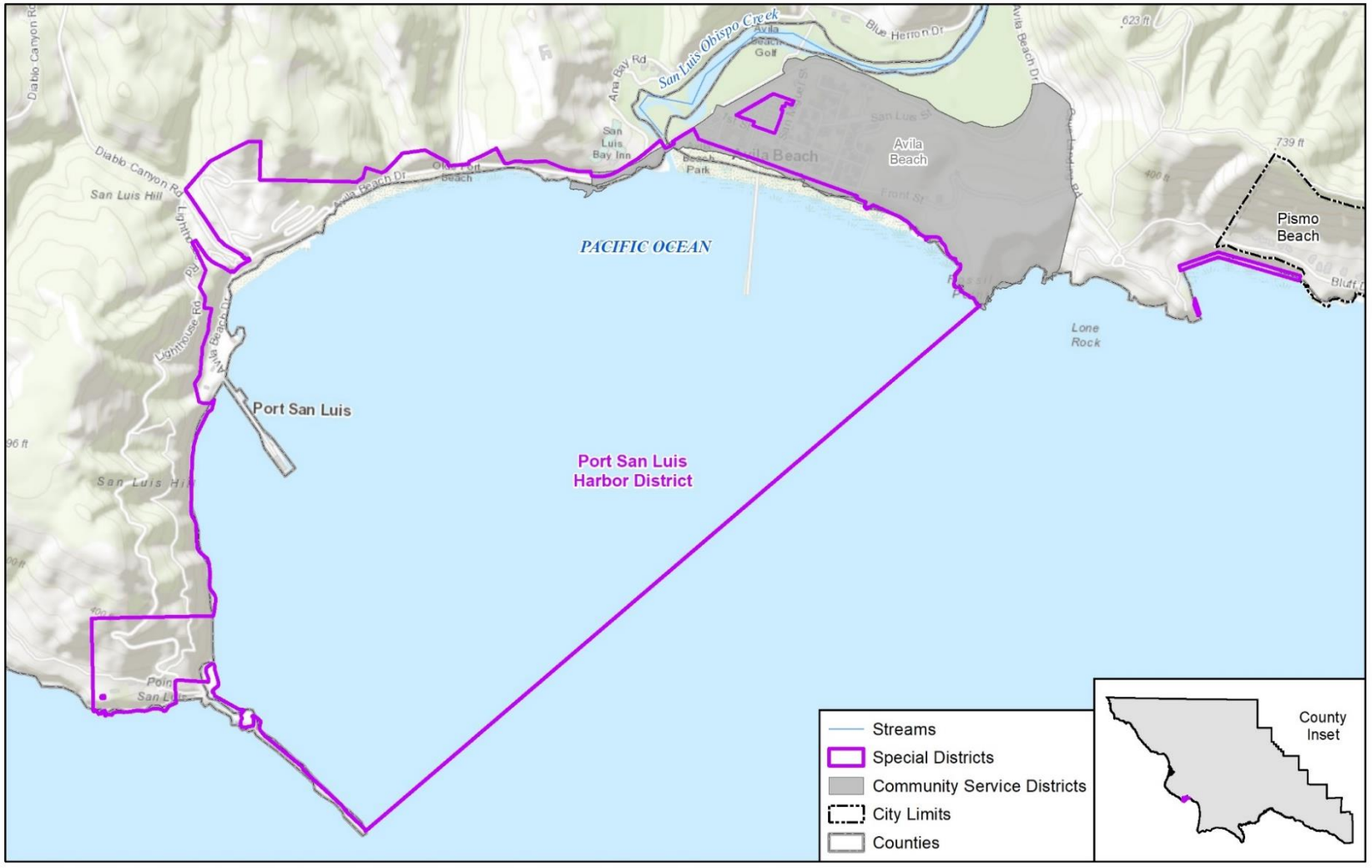
DEPARTMENT OR STAKEHOLDER	TITLE
Facilities	Facilities Manager
Facilities	Planner/Analyst
Harbor Patrol	Chief Harbor Patrol Officer
Business	Manager

Table S-2 Port San Luis Harbor District Stakeholder Groups, Neighboring Communities, and Local Agencies

STAKEHOLDER CATEGORY	ORGANIZATION
Agencies involved in hazard mitigation activities:	San Luis Obispo County OES
Agencies that have the authority to regulate development:	California Coastal Commission
Neighboring Communities:	Avila Beach CSD City of Pismo Beach
Representatives of business academia, and other private orgs:	South SLO County - Chamber of Commerce
Representatives supporting underserved communities:	Community Action Partnership of SLO

More details on the planning process and how the jurisdictions, service districts and stakeholders participated can be found in Chapter 3 of the Base Plan (Planning Process), as well as how the public was involved during the 2025 update. Figure S-1 below shows the boundaries of the Port San Luis Harbor District.

Figure S-1 Port San Luis Harbor District



Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County, Port San Luis Harbor District

S.1.2 District Overview

The origins of Port San Luis began in 1868 when John Harford, a local entrepreneur, proposed building a wharf in the sheltered west side of San Luis Obispo Bay. The wharf, later to be named Harford Pier, was completed in 1873. Through its early years the Port was a key link to the County's dairy, grain, cattle, hogs, and other farm and mineral exports. When oil was discovered in San Luis Obispo County and northern Santa Barbara County, oil storage tanks were erected on a hillside north of the port, Harbor Terrace. After the standard-gauge Southern Pacific Railroad lines arrived along with the hardships of the Great Depression in the late 1920s, the port declined, and the oil facilities were abandoned; by the 1950s the pier was unable to support freight vehicles due to the extreme state of disrepair.

In 1954 the citizens of southern San Luis Obispo County voted to create and fund a Harbor District for the Port San Luis Area. It was hoped that this action would provide a means to fix up the old facilities and create some commerce for the south county. The State of California granted the Harbor District the tidelands of San Luis Obispo Bay, with boundaries of Point San Luis on the west, Irish Hills in the north, Sunset Palisades to the east, and the Ocean areas southward. The Harbor District acquired the Harford Pier in 1965 and began rehabilitating the pier to allow modern functions while preserving its historic character.

Since the mid-1960s the Port San Luis Harbor District has acquired additional properties, most of which have limited access due to the local topography. Current District owned properties span from the Point San Luis Lighthouse to Avila Beach. The Harbor District operates and maintains Harford Pier, Harford Landing, Avila Pier, Avila Beach, Avila Beach Parking Lot, Olde Port Beach, Fisherman's Beach, Point San Luis Lighthouse, and Harbor Terrace. The neighboring properties are used for agriculture for the most part, with the exception of the Diablo Canyon Nuclear Power Plant northwest of the Port. The Harbor Commission has since sought to implement the original goal of the first Commission and vision of the Founding Fathers of the District: to repair the facilities and become economically viable while serving the public. The District's mission statement overall is to "serve the public with an array of commercial and recreational boating, fishing and coastal related opportunities, while ensuring an environmentally responsible, safe, well-managed and financially sustainable harbor that preserves [the District's] marine heritage and character" (Port San Luis Harbor District website).

S.1.3 Development Trends

Port property mandates require consideration of the needs of harbor users alongside with the resources required to serve them (e.g. waterfront locations as well as capital and infrastructure improvements). Therefore, planning activities need to be implemented in smart ways which preserve environmental resources such as land and water ecosystems, scenic views, and the overall waterfront character of the Port. Some key planning issues which affect policy and development designs are: addressing District priorities and fiscal issues while meeting the needs of the harbor users (e.g. recreational activities), guaranteeing coastal access, and maintaining and preserving the environment (e.g. marine ecology). As such, future potential development may be limited but should retain the architecture and landscaping principles of the local waterfront character, while taking into account the aforementioned planning issues to reduce long term maintenance requirements. As such, proposed developments at the Port must always be within resource and system capabilities available to the District, while additionally meeting safety requirements. For more details on the specific limitations to development, ongoing issues with planning efforts, and the Port's overall short- and long-term objectives for the District and its management, refer to the Port San Luis Harbor District Master Plan revised in 2007.

S.1.4 Other Community Planning Efforts

Coordination and synchronization with other community planning mechanisms and efforts are vital to the success of this plan. To have a thorough evaluation of hazard mitigation practices already in place, appropriate planning procedures should involve identifying and reviewing existing plans, policies, regulations, codes, tools, and other actions designed to reduce a community's risk and vulnerability from natural hazards.

The Port San Luis Harbor District is referenced in other County planning documents and regulated by County policies and planning mechanisms. Integrating existing planning efforts, mitigation policies, and action strategies into this Annex establishes a credible, comprehensive document that weaves the common threads of a community's values together. The development of this jurisdictional annex involved a comprehensive review of existing plans, studies, reports, and initiatives from San Luis Obispo County and the District that relate to hazards or hazard mitigation. A high-level summary of the key plans, studies and reports is summarized in Table S-3. Information on how they informed the update are noted and incorporated where applicable.

Table S-3 Summary of Review of Key Plans, Studies and Reports

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Port Master Plan (2004) – Revised in 2007	Pulled information on the Port's history, planning challenges, issues with hazards, and other such key issues.
Avila Community Plan, Background Report (2018)	Incorporated background information on the community and CSD including historical and cultural resources, and development and land use trends; incorporated hazard information and maps (if applicable) and informed the Vulnerability Assessment.
San Luis Bay Area Plan – Coastal (Revised August 2009)	Incorporated hazard information related to flooding and coastal hazards.
San Luis Obispo County – Tsunami Emergency Response Plan (Revised April 2016)	Informed the Vulnerability Assessment for tsunami risk.

S.2 Hazard Identification and Summary

The District's Planning Team identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to the Port San Luis Harbor District (see Table S-4). There are no hazards that are unique to the Port San Luis Harbor District compared to the rest of the County.

Table S-4 Port San Luis Harbor District Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Lightening, Freeze, Hail, Dense Fog	Extensive	Highly Likely	Limited	Medium
Adverse Weather: High Wind and Tornado	Extensive	Highly Likely	Limited	Medium
Adverse Weather: Extreme Heat	Extensive	Highly Likely	Limited	Medium

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Coastal Storms/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise	Significant	Highly Likely	Limited	High
Earthquake and Liquefaction	Extensive	Likely	Critical	Medium
Flood	Limited	Highly Likely	Limited	Medium
Landslide and Debris Flows	Significant	Highly Likely	Critical	Medium
Tsunami and Seiche	Significant	Occasional	Catastrophic	High
Wildfire	Significant	Occasional	Critical	Medium
Human Caused: Hazardous Materials	Extensive	Unlikely	Catastrophic	High

Geographic Area
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Probability of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.

Magnitude/Severity (Extent)
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid
Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

S.3 Vulnerability Assessment

The intent of this section is to assess the Port San Luis Harbor District's vulnerability separately from that of the planning area, which has already been assessed in Section 5 Hazard Identification and Risk Assessment in the Base Plan. This vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance as rated by the Planning Team.

The information to support the hazard identification and risk assessment for this Annex was collected through a Data Collection Guide, which was distributed to each participating municipality or special district to complete during the planning process. Information collected was analyzed and summarized in order to identify and rank all the hazards that could impact anywhere within the County, as well as to rank the hazards and identify the related vulnerabilities unique to each jurisdiction. The Port San Luis Harbor District planning team members were also asked to share information on past hazard events that have affected the District.

Each participating jurisdiction was in support of the main hazard summary identified in the Base Plan (see Table 5.2). However, the hazard summary rankings for each jurisdictional annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction. Identifying these differences helps the reader to differentiate the jurisdiction's risk and vulnerabilities from that of the overall County.

Note: The hazard "Significance" reflects overall ranking for each hazard and is based on the Port San Luis planning team input from the Data Collection Guide and the risk assessment developed during the planning process (see section 5 of the Base Plan), which included a more detailed qualitative analysis with best available data.

S.3.1 Other Hazards

- The following hazards identified in the base plan HIRA are not identified within this jurisdictional annex due no risk or insignificant anticipated impacts and are not considered further for vulnerability assessment or mitigation actions
- Agricultural Pests and Plant Disease
- Biological Agents
- Dam Incidents
- Drought
- Subsidence

S.3.2 Assets at Risk

This section considers the District's assets at risk, including values at risk, critical facilities and infrastructure, historic assets, economic assets, and growth and development trends.

Values at Risk This section considers the District's assets at risk, including critical facilities and infrastructure, historic assets, economic assets, and growth and development trends.

The total value of these assets, according to the Districts' property inventory, as of April 2025 is $52,259,121 in improvements and $1,219,056 in contents. Details by asset type are provided in an attachment to this annex.

S.3.2.1 Critical Facilities and Infrastructure

A critical facility is one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. See Section 5 of the Base Plan for more details on the definitions and categories of critical facilities.

An inventory of critical facilities in the County based on San Luis Obispo County GIS data as well as structures obtained from the Homeland Infrastructure Foundation-Level Dataset (HIFLD) is provided in Section 5.2 Asset Summary of the Base Plan. Refer to Section 5.2 of the Base Plan for more information on the Assets used throughout this annex, including the definitions and categories of critical facilities, and the County-wide analyses.

Information provided by the District in the attachment to this annex indicates the following critical facilities:

- Water Tank/Domestic Well
- Water Tank(s)153k. gal/Booster Pump
- Sewer lift stations (5)
- Diesel Facility/Pump Out
- Backup Generators (3)

S.3.2.2 Transportation and Lifeline Facilities

There is only one main way in and out of the Port District and Avila Beach by automobile. Avila Beach Drive is the main transportation waypoint and, if obstructed or out of service (e.g., when closed down for repairs or due to hazard events such as the landslide which took place about circa 2009), access to the port and Avila Beach become severely limited unless traveling by foot.

Because the Diablo Canyon Nuclear Power Plant is mainly accessible through this road, access issues are of importance to the nearby communities due to reliance on this primary road which may become unavailable and hence prevent hundreds of cars from travelling to and from the nuclear plant. During a hazard or serious emergency event it would be required to provide fast and unrestricted access to critical services (e.g. firefighting), and so emergency responders could face serious impediments during a critical situation if this main road becomes difficult or impossible to traverse on the way to or from the nuclear plant.

S.3.2.3 High Potential Loss Facilities

The Diablo Canyon Nuclear Power Plant is located north of the Diablo Canyon Road, accessible through Avila Beach and the Harbor District via Avila Beach Drive.

S.3.2.4 Historic and Cultural Resources

The Port San Luis Harbor District manages Port San Luis Harbor, which serves the public with commercial and recreational boating, fishing, and coastal-related opportunities. The Port San Luis Harbor includes Harford Pier, Harbor terrace, Fishermen's Beach, Port Beach, Cal Poly Research Pier, a historic lighthouse, Avila Pier, Avila Beach, and Pirate's Cove, among some of the prominent cultural and relevant community resources (Avila Community Plan, 2018).

S.3.2.5 Natural Resources

Ecological assets have been historically of high importance to the Harbor District community, as indicated in the District's Master Plan. Assets such as the beach and bluffs, open waters, and species diversity are critical to the District and surrounding communities.

S.3.2.6 Economic Assets

The port, beaches, piers, campgrounds, and other assets the Harbor District manages are in themselves main assets for the community, as it generates profits from tourists and other populations visiting the area and its environmental and natural amenities. In addition, the Diablo Canyon plant is an economic asset near the Port, on which many locals rely for jobs and to sustain the local economy.

S.3.3 Estimating Potential Losses

This section details vulnerability to specific hazards of medium or high significance, where quantifiable, noted by the Planning Team, and/or where it differs significantly from that of the overall County. Impacts of past events and vulnerability to specific hazards are further discussed below, though refer to Section 5 of the Base Plan for more details on the County's HIRA findings and hazard profiles.

S.3.3.1 Adverse Weather: Thunderstorm/ Heavy Rain/ Lightning/ Hail/ Dense Fog

Adverse weather involves thunderstorms, heavy rain, hail, lightning, dense fog, and freeze. In the District, these hazards have been known to occur given the District's location on the coast and hence the climatic and weather variability with seasonable changes, tides, and ocean currents. Adverse weather hazards pose a **Medium** hazard, per the District's local planning team. The average precipitation is 22 inches annually, with most of the rainfall happening in the winter months. The District has experienced lightning storms in the past, which poses a potential fire hazard for the two wooden piers within San Luis Bay. Dense fog, a common

element of shorelines and harbors during the early mornings of cooler months, also poses significant risks for boaters on the water. Low visibility caused by dense fog may lead to damage of boats and other structures in the event of a collision.

The tables below show key climate variables such as extreme temperatures, precipitation totals, and the frequency of specific weather events. Note that San Luis Obispo Cal Poly weather station is the nearest official reporting site to Port San Luis Harbor District. Actions to mitigate other adverse weather elements—such as thunderstorms, heavy rain, and tornadoes—are incorporated into actions that address coastal storms and flooding. More specifics on coastal storms and sea level rise issues are discussed in the following chapters of this annex. For more details on overall adverse weather hazards and historical events, refer to Section 5.3.1 of the Base Plan.

Table S-5 San Luis Obispo Cal Poly Climate Summary Table – Weather (Period of Record: 10/01/1927 - 04/09/2025)

SUMMARY PERIOD	MONTHLY MEAN MAXIMUM TEMP.	MONTHLY MEAN MINIMUM TEMP.	DAILY EXTREME HIGH TEMP	DAILY EXTREME HIGH DATE	DAILY EXTREME LOW TEMP	DAILY EXTREME LOW DATE	MAXIMUM TEMP. ≥ 90˚F MEAN # DAYS	MINIMUM TEMP. ≤ 32˚F MEAN # DAYS
Winter	64.2˚F	43˚F	92˚F	12/4/1958	17˚F	12/23/1990	0	3.2
Spring	68.4˚F	46.2˚F	104˚F	4/8/1989	28˚F	3/1/1962	1.4	0.2
Summer	77.3˚F	52.3˚F	111˚F	7/7/1989	35˚F	6/29/1988	5	0
Fall	75.5˚F	49.9˚F	113˚F	9/6/2020	23˚F	11/24/2004	7	0.3
Annual	71.3˚F	47.9˚F	113˚F	9/6/2020	17˚F	12/23/1990	13.6	3.8

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

Table S-6 San Luis Obispo Cal Poly Climate Summary Table – Precipitation (10/01/1927 - 04/09/2025)

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECIP.1 DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. ≥ 1.00 IN. MEAN # DAYS
Winter	13.15 in.	43.71 in.	1969	0.43 in.	1907	6.05 in.	1/9/2023	4.3
Spring	5.42 in.	18.36 in.	1995	0.05 in.	1997	4.75 in.	3/7/1911	1.5
Summer	0.18 in.	1.88 in.	1933	0 in.	1893	1.7 in.	6/5/1933	0
Fall	3.1 in.	9.51 in.	1972	0.01 in.	1980	3.58 in.	11/20/1946	0.9
Annual	22.02 in.	48.76 in.	1969	4.56 in.	2013	6.05 in.	1/9/2023	6.9

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

S.3.3.2 Adverse Weather: High Wind and Tornado

Port San Luis Harbor District overall significance rating for high wind and tornadoes is **medium**. While the region typically experiences a mild coastal climate, certain factors elevate its vulnerability to these hazards. High wind events in the district are primarily associated with winter storm systems. These storms can produce gusty winds capable of causing minor damage, such as downed tree limbs and power lines. The area's coastal location can sometimes amplify wind speeds, especially strong frontal passages. While tornadoes remain extremely rare along the Central Coast, the February 2024 EF1 tornado that touched down in

nearby Los Osos demonstrates that under the right conditions, tornadic activity can occur—even in coastal zones.

S.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **medium** significance hazard for the Port of San Luis Harbor District. The average high summer temperature for the Cal Poly NOAA weather station, which is contained within the District's boundaries, is 77.3˚F; however, temperatures up to 113˚F have been recorded (see Table S-5). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

Extreme heat poses a threat to the district's infrastructure, as high temperatures can accelerate the deterioration of materials like asphalt and metal, while also overloading electrical systems that power lights, pumps, and other equipment. These issues could lead to more frequent maintenance needs or temporary service disruptions. Extreme heat also poses risk to worker health and safety. Harbor staff, maintenance crews, and vendors working outdoors are more susceptible to heat exhaustion or heat stroke, which may require additional safety protocols to protect them.

The harbor's marine and coastal ecosystems are also vulnerable. Elevated water temperatures can reduce oxygen levels in the water, potentially leading to fish die-offs or shifts in ecosystems. Warmer conditions also increase the risk of harmful algal blooms which can impact water quality and threaten both wildlife and human health. These environmental changes, combined with hot weather, can decrease tourist visitation. Public use areas like beaches, campground, and boating facilities may see reduced attendance or an uptick in heat-related medical incidents. Additionally, the surrounding coastal hills, which are covered in vegetation, become more fire prone during periods of extreme heat. Wildfires near the harbor could threaten evacuation routes, harm air quality, and pose serious safety hazards.

S.3.3.4 Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise

As a low-lying coastal and port community, the Port San Luis Harbor District is exposed to a range of coastal hazards, including coastal storms, coastal erosion, and sea level rise. As described in Section 5.3.4 of the Base Plan, these hazards are projected to become more severe with climate change. The District and surrounding areas, such as Avila Beach, have historically experienced coastal storm impacts.

The District has ranked these hazards as **High Significance**, noting frequent damages from storm waves and southern-facing storms. Coastal armoring, including bluff and sea walls in adjacent Avila Beach, have helped reduce bluff erosion, but vulnerability to infrastructure impacts remains high.

A 2025 updated GIS analysis confirmed there are currently no critical facility properties within mapped 1% annual chance (100-year) or 0.2% annual chance (500-year) floodplains under Port San Luis Harbor District jurisdiction. Similarly, no properties were identified as directly at risk under modeled sea level rise scenarios (25-cm, 75-cm, or 300-cm) combined with a 1% annual chance coastal flood event. A 2020 Sea-level Rise Vulnerability Assessment for Port San Luis Harbor District also noted that most district facilities (buildings, piers, parking lots) are located outside of areas affected by inundation from sea level rise.

The Port San Luis Harbor District manages harbor facilities and government-owned assets, with little residential or commercial development. However, key infrastructure remains exposed to sea level rise, coastal storms, and tidal flooding. Avila Beach Drive, Beach Colony Lane, and sections of the harbor flood during severe storms, and conditions are expected to worsen as sea levels rise. The District has identified vulnerabilities at Harford Landing, including the revetment, jetties, and pier structures, which will likely require redesign or

reinforcement to withstand future impacts. According to the 2020 Sea-level Rise Vulnerability Assessment the waterfront edge at Harford Landing is exposed to wave overtopping annually during winter storms.

According to recent assessments, about 6% of the District's land could experience daily tidal flooding by 2100 under high emissions scenarios, with larger areas facing periodic storm-driven inundation. Critical assets, including harbor operations and public access points, face long-term exposure to damage or loss. The District's adaptation strategies focus on maintaining harbor function, reinforcing public infrastructure, and building resilience against rising seas.

S.3.3.5 Values at Risk and Population Exposure – Coastal Hazards

Updated 2025 GIS analysis confirmed that no population, critical facilities, or significant property values are currently exposed within the Port San Luis Harbor District to mapped FEMA flood hazard areas or modeled sea level rise scenarios. This outcome reflects the District's role as a harbor management agency with limited developed property under its jurisdiction, unlike cities or community services districts (CSDs).

Please refer to Section 5 of the Base Plan for regional sea level rise and coastal hazard vulnerability analysis across San Luis Obispo County.

Figure S-2 Port San Luis Harbor District Sea Level Rise Scenario Analysis: Tidal Inundation Only

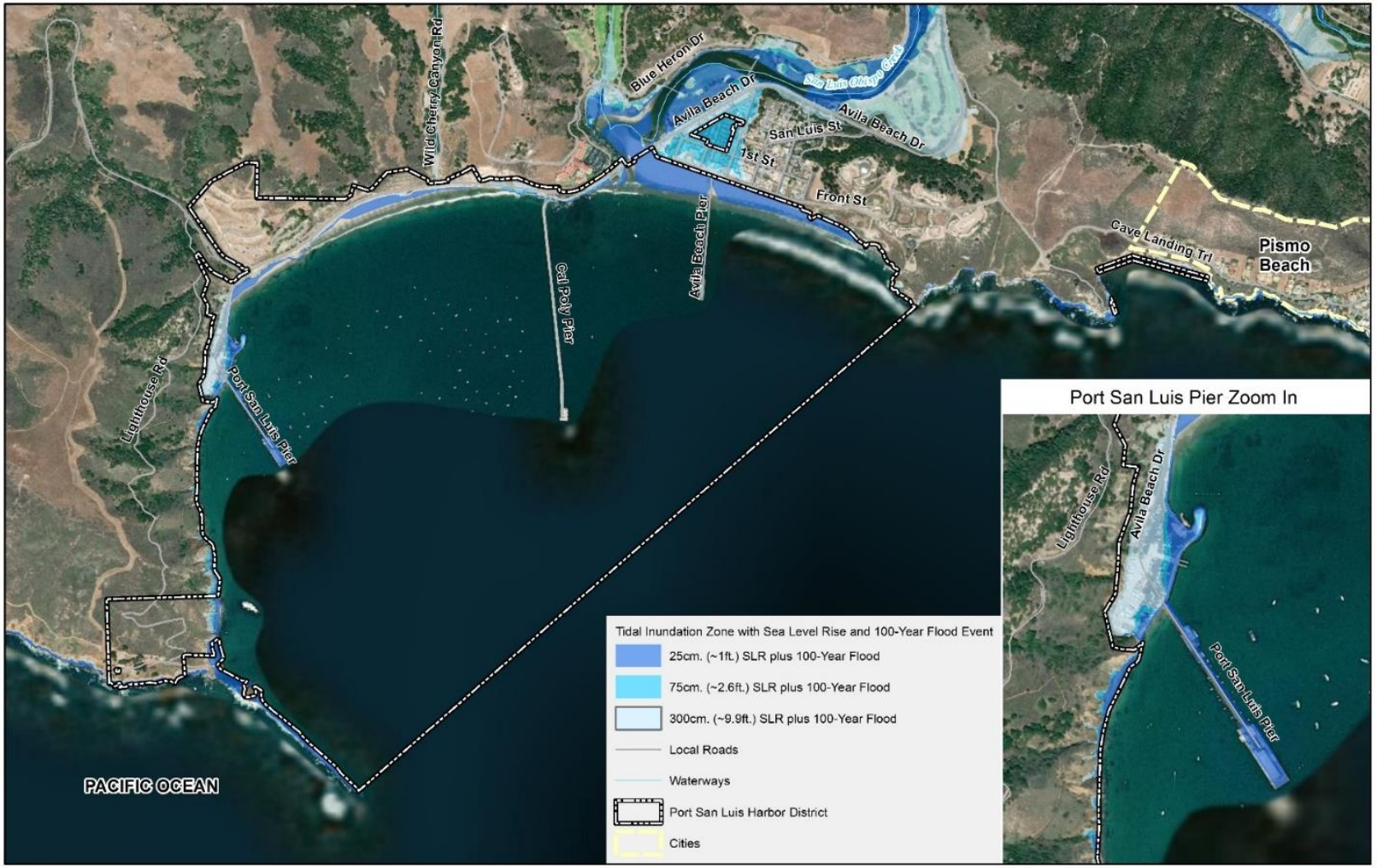
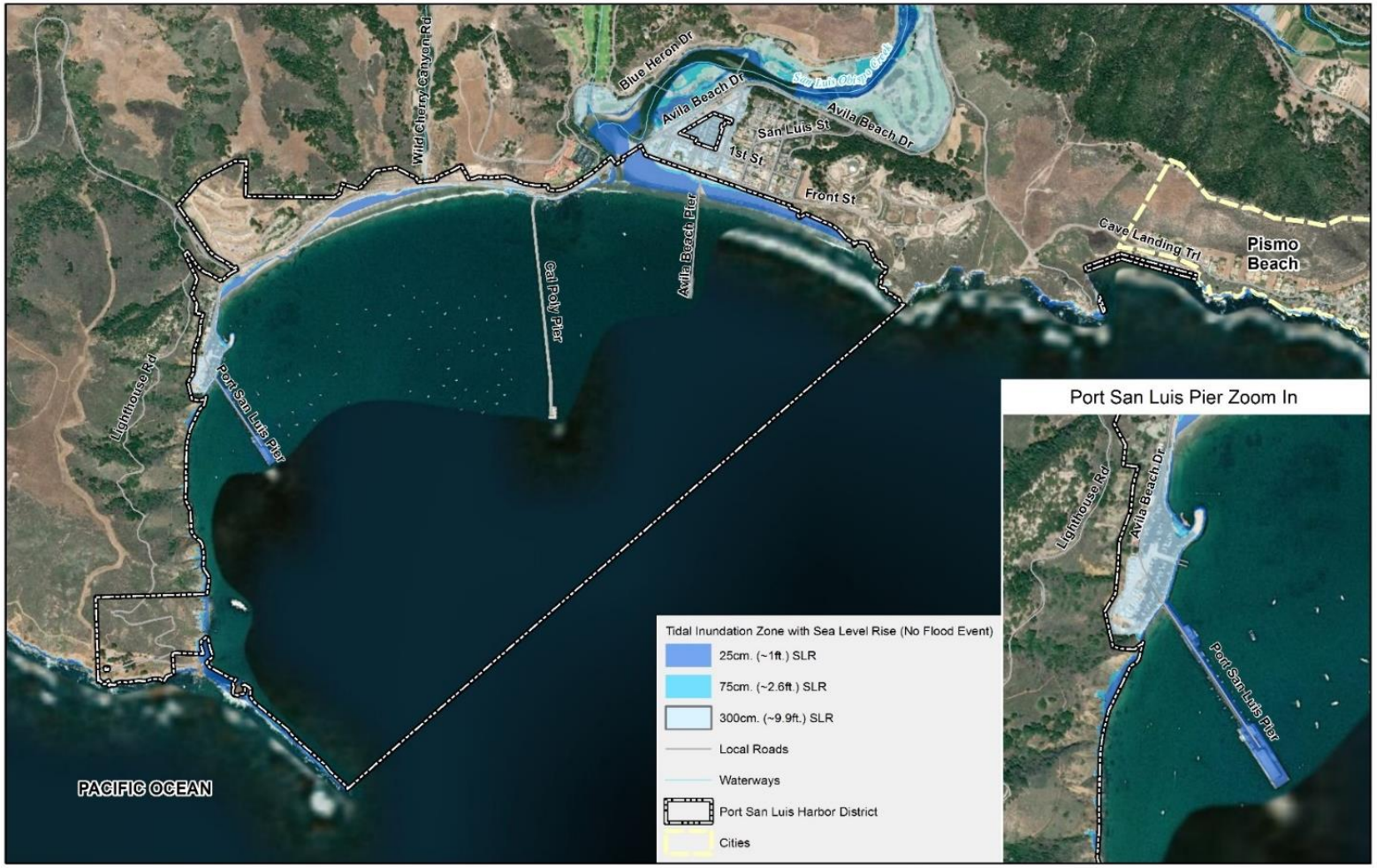


Figure S-3 Port San Luis Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood



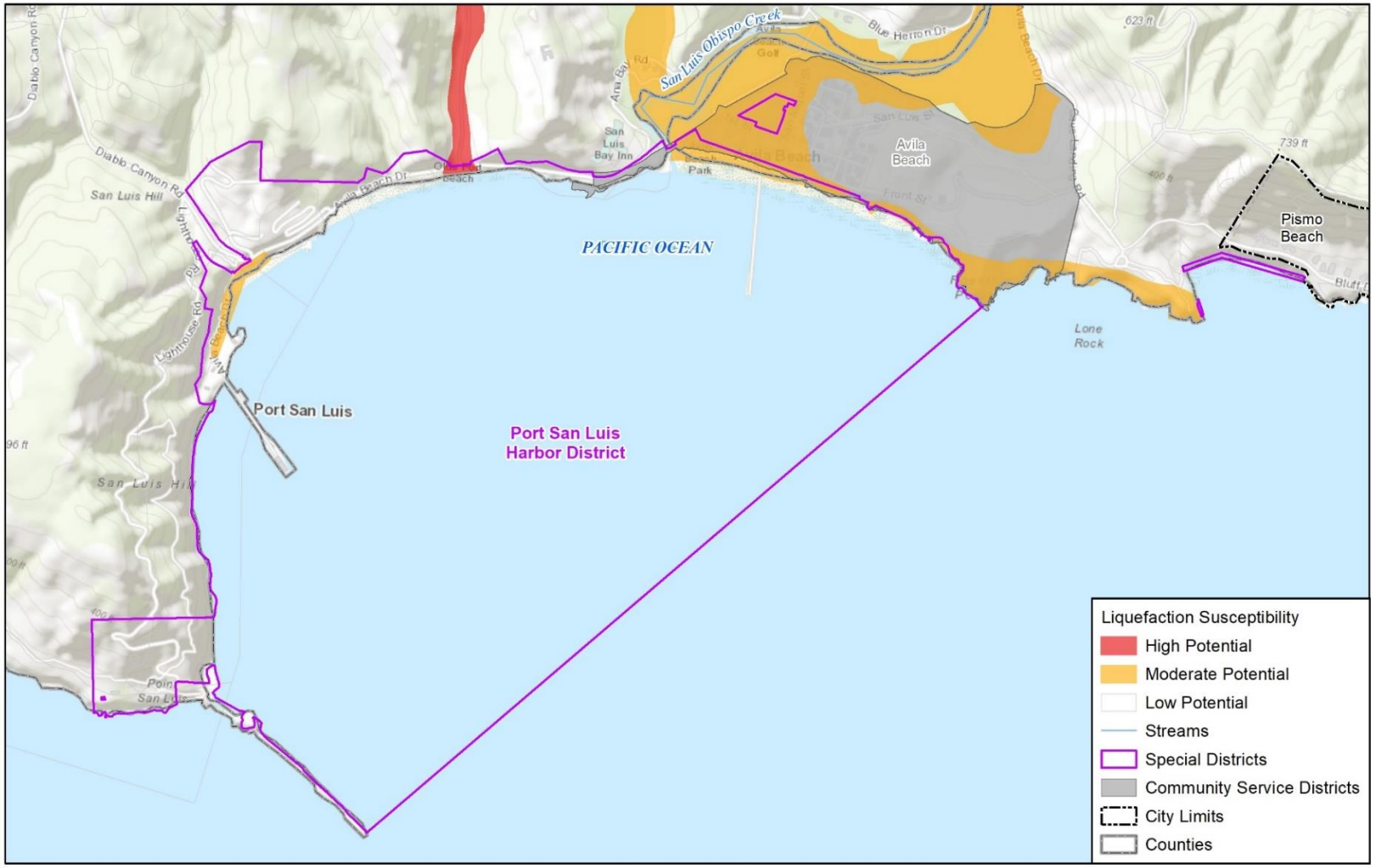
Map compiled 9/2019;
intended for planning purposes only.
Data Source: USGS CoSMoS v3.1.
San Luis Obispo County, US Census TIGER
Database, CA Open Data Portal, LAFCO.
Note: SLR = Sea Level Rise

S.3.3.6 Earthquake and Liquefaction

There are two fault lines that run through the northern and northeastern portions of the District, part of the South Margin section of the San Luis Range system. As much of the district's infrastructure is located along the coast,, there is also a risk of earthquakes offshore and resulting tsunami events (refer to the Tsunami and Seiche section of this annex, below). In 1916 a magnitude 5.1 earthquake occurred offshore of Avila Beach in the San Luis Bay. There is limited data on these events at the local level including if ground shaking was felt and at what intensity. The earthquake reportedly resulted in smokestacks at the Union Oil Refinery at Port San Luis to fall, and a post-earthquake landslide to occur that blocked railroad tracks.

The Diablo Canyon Power Plant is located just north of the District and is within the proximity of the Hosgri fault line just offshore. The Power Plant was originally designed to withstand a 6.75 magnitude earthquake and has been upgraded to withstand a 7.5 magnitude earthquake. The Plant has in place extensive seismic monitoring and safety systems to shut down quickly in a significant ground shaking event.

Figure S-4 Port of San Luis Harbor District Liquefaction Risk



Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
Port San Luis Harbor District

S.3.3.7 Flood

The Port San Luis Harbor District remains at a **Medium Significance** risk for both coastal and riverine flooding. Coastal flooding is discussed in the previous section on Coastal Storms, Coastal Erosion, and Sea Level Rise. Riverine flood hazards primarily originate from San Luis Obispo Creek, which drains to the Pacific Ocean at the northern boundary of the District, near Avila Beach. Historical events, including the floods of 1969 and 1973, caused significant damage along this creek corridor.

The Creek and adjacent flood hazard areas are regulated under the County's Title 23 standards and the San Luis Bay Coastal Area Plan. According to the Area Plan, a 100-year flood event would result in major flooding throughout the length of San Luis Obispo Creek, with adjacent areas at high risk. Smaller tributaries and unnamed drainages near Wild Cherry Canyon Road and Lighthouse Road also present localized flood risks within the District's boundaries.

Roadway infrastructure is highly vulnerable during flood events, particularly portions of:

- Avila Beach Drive
- San Luis Bay Drive
- Ontario Road
- The Avila Beach parking lot

The parking lot in Avila Beach is especially prone to consistent seasonal flooding (January–March). In 2016, the San Luis Obispo County Public Works Department spent $60,000 on emergency pumping to clear floodwaters. A 2017 Conceptual Design Report recommended a permanent pumping system estimated at $375,000, with ongoing annual maintenance costs of $25,000. The 2017–2018 Capital Improvement Program recognized this project as a long-term flood mitigation need.

Recent atmospheric river events in early 2025 reinforced the District's vulnerability. In February 2025, intense rainfall associated with a strong atmospheric river storm caused widespread flooding throughout San Luis Obispo County, including Avila Beach and portions of the Harbor District. Floodwaters overtopped Front Street, pooled extensively at known low-lying areas, and placed additional pressure on drainage systems already prone to clogging with debris. Property owners reported slower drainage times compared to previous years, and minor localized flooding persisted through multiple tidal cycles.

Additionally, a high surf and coastal flooding event in December 2024 temporarily inundated the intersection of 1st Street and San Francisco Street in Avila Beach. Although the water receded with the outgoing tide, these repeated incidents illustrate the compounding flood risks associated with sea level rise, heavy rainfall, and storm-driven coastal surge.

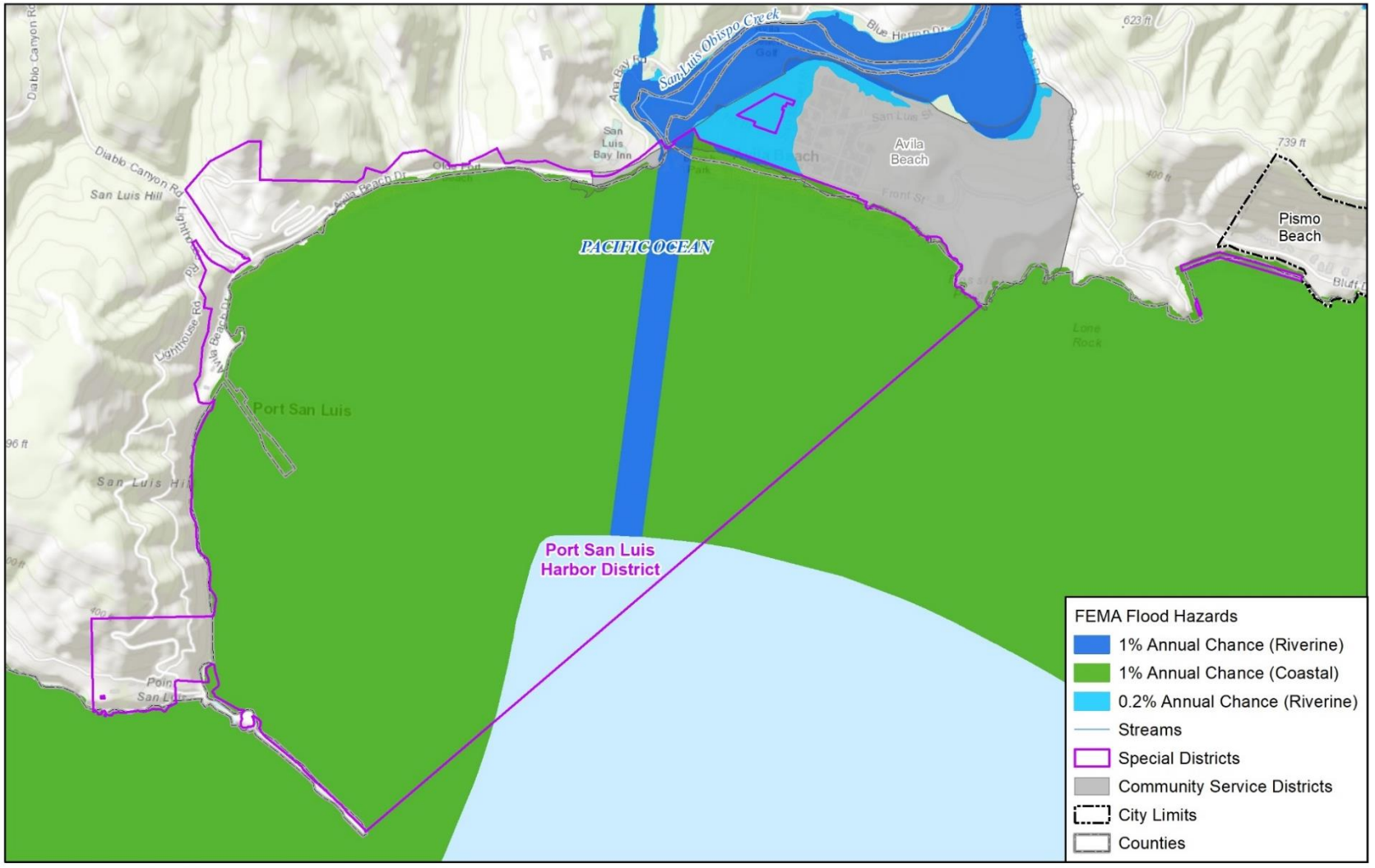
Values at Risk

GIS analysis of the San Luis Harbor District indicated that there are currently no critical facilities and no residential, commercial, or other properties located within the 1% annual chance (100-year) or and 0.2% annual chance (500-year) floodplains. This finding is notable because, unlike other jurisdictions participating in this hazard mitigation plan update, the Harbor District is a special district (not a city or a CSD), and it covers a relatively narrow area focused primarily on harbor and coastal activities. As a result, traditional land uses such as residential neighborhoods, schools, and major infrastructure are minimal or absent within District boundaries. Because no critical facilities or properties were identified within mapped flood hazard zones, no site-specific flood vulnerability tables are included for this annex. See also related discussion in the Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise section of this annex.

The Harbor District in not required to participate separately in the National Flood Insurance Program (NFIP) but will continue to support the County's participation in and compliance with the NFIP.

Figure S-5 shows the Port San Luis Harbor District flood hazard areas. For additional flood risk analysis, including broader coastal and riverine flood hazards affecting the surrounding region, please refer to Section 5.3.2 (Flood) of the Base Plan.

Figure S-5 Port San Luis Harbor District Flood Hazard Areas



Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
Port San Luis Harbor District, FEMA NFHL Effective 6/6/2024

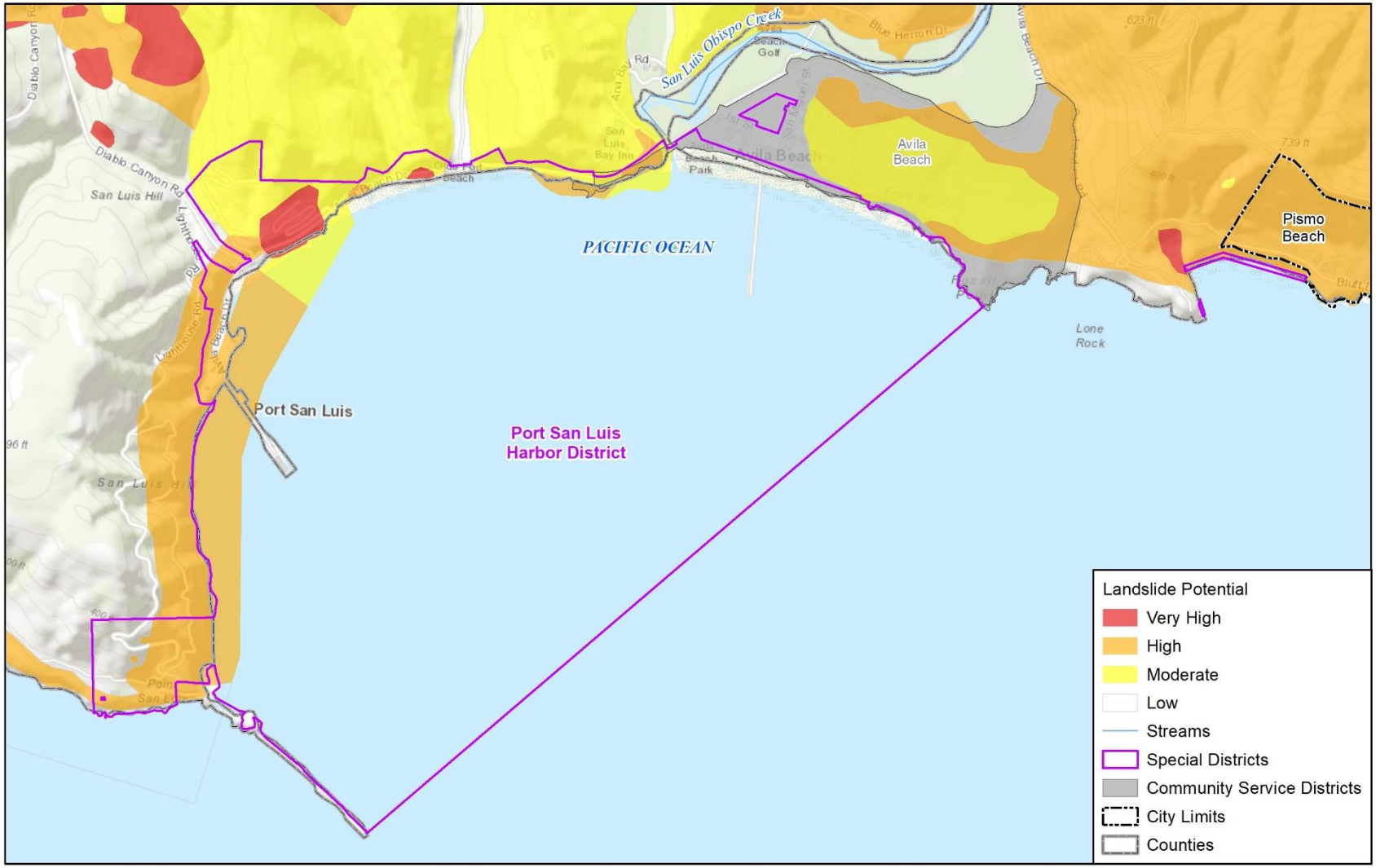
S.3.3.8 Landslides and Debris Flow

Overall, landslide and debris flow hazards have been ranked by the local planning team as holding **Medium Overall Significance** for the Port San Luis Harbor District.

Most of the district is found within high potential landslide areas. As shown in Figure S-6 below, areas east of Highway 101 have a moderate, high, or very high potential for landslides. Areas west of Highway 101 have a low potential for landslides. A landslide event along Avila Beach Drive, the only major road into or out of the Town of Avila Beach, could have serious impacts on both visitors and residents as well as restrict travel to and from the Port of San Luis and the Diablo Canyon Power Plant. According to the local planning team, a massive landslide event that occurred 15 years ago along on Avila Beach Drive did cutoff access to the Port and Diablo Canyon. The committee noted there is an alternative entrance through Diablo Canyon, but it not designed for hundreds of vehicles over the extended period of time that would be necessary to clean debris from the roadway caused by a landslide or debris flow event. Areas around Lopez Lake and Alamo Creek also have very high potential for landslides. A landslide into a water source could greatly disrupt water quality and ecosystem health.

While no critical facilities are found to overlap with landslide potential areas (as there are no critical facilities in the district based on the dataset used), the Port San Luis Lighthouse is considered a historical point of interest in the district, and this one is found within a high landslide potential area.

Figure S-6 Landslide Potential Areas in the Port San Luis Harbor District

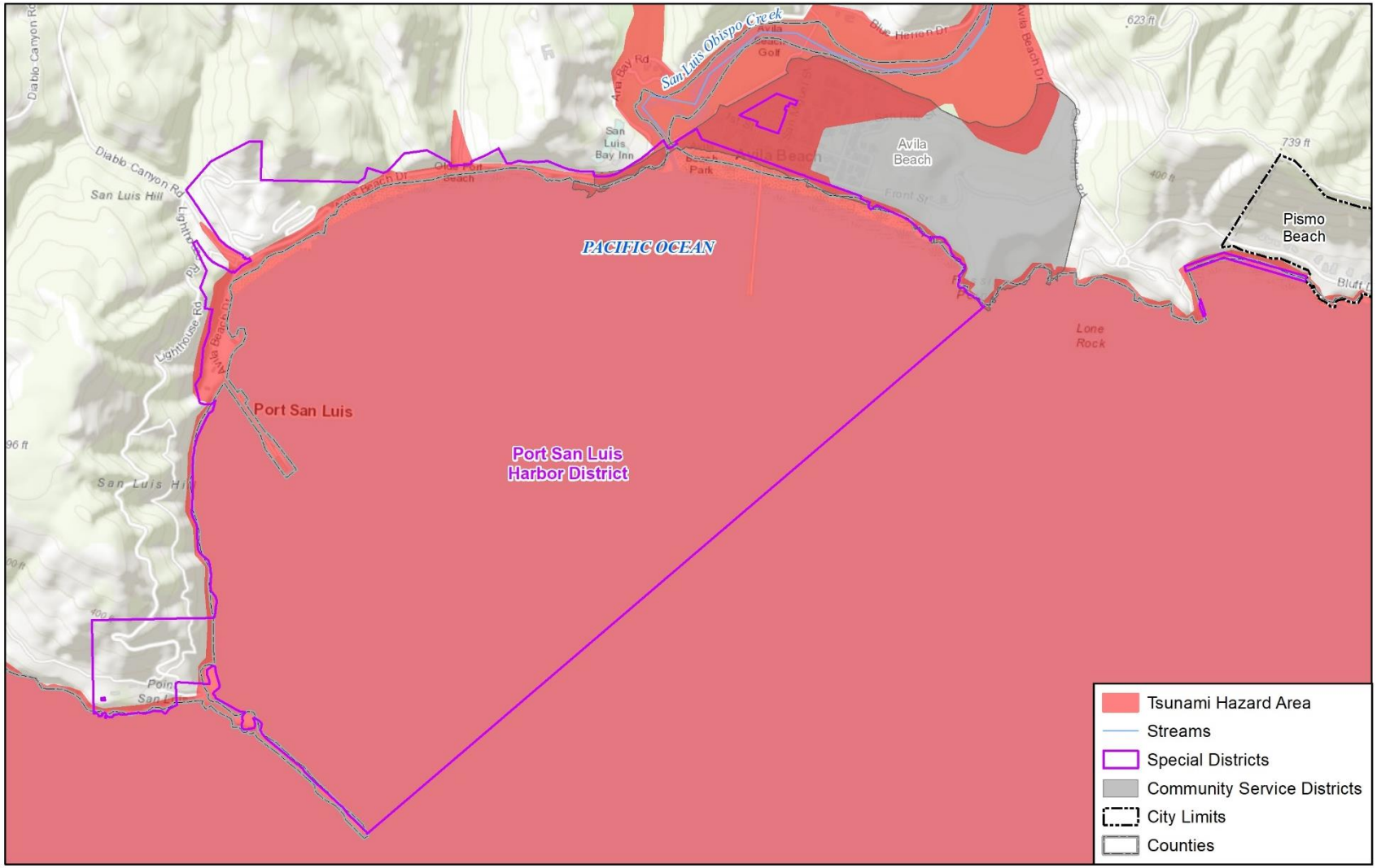


Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
Port San Luis Harbor District

S.3.3.9 Tsunami

Tsunami inundation poses a risk to all coastal communities in the County of San Luis Obispo. Offshore faults and related seismic activity could cause a tsunami event off the coast of the District, even if the faults are hundreds of miles away. According to the County's Tsunami Response Plan the areas within and nearby the Avila Beach community and the Port San Luis Harbor District that are most vulnerable to a tsunami event include areas inland within and adjacent to San Luis Obispo Creek, including Avila Beach Drive. There have been three recorded tsunami events between 1946 and 1964 that have impacted the Avila Beach community and possibly the Port District. Refer to Section 5.3.11 of the Base Plan for more information related to the past tsunami and seiche events and details on future vulnerability and climate change issues.

Figure S-7 Tsunami Inundation Areas in the Port San Luis Harbor District



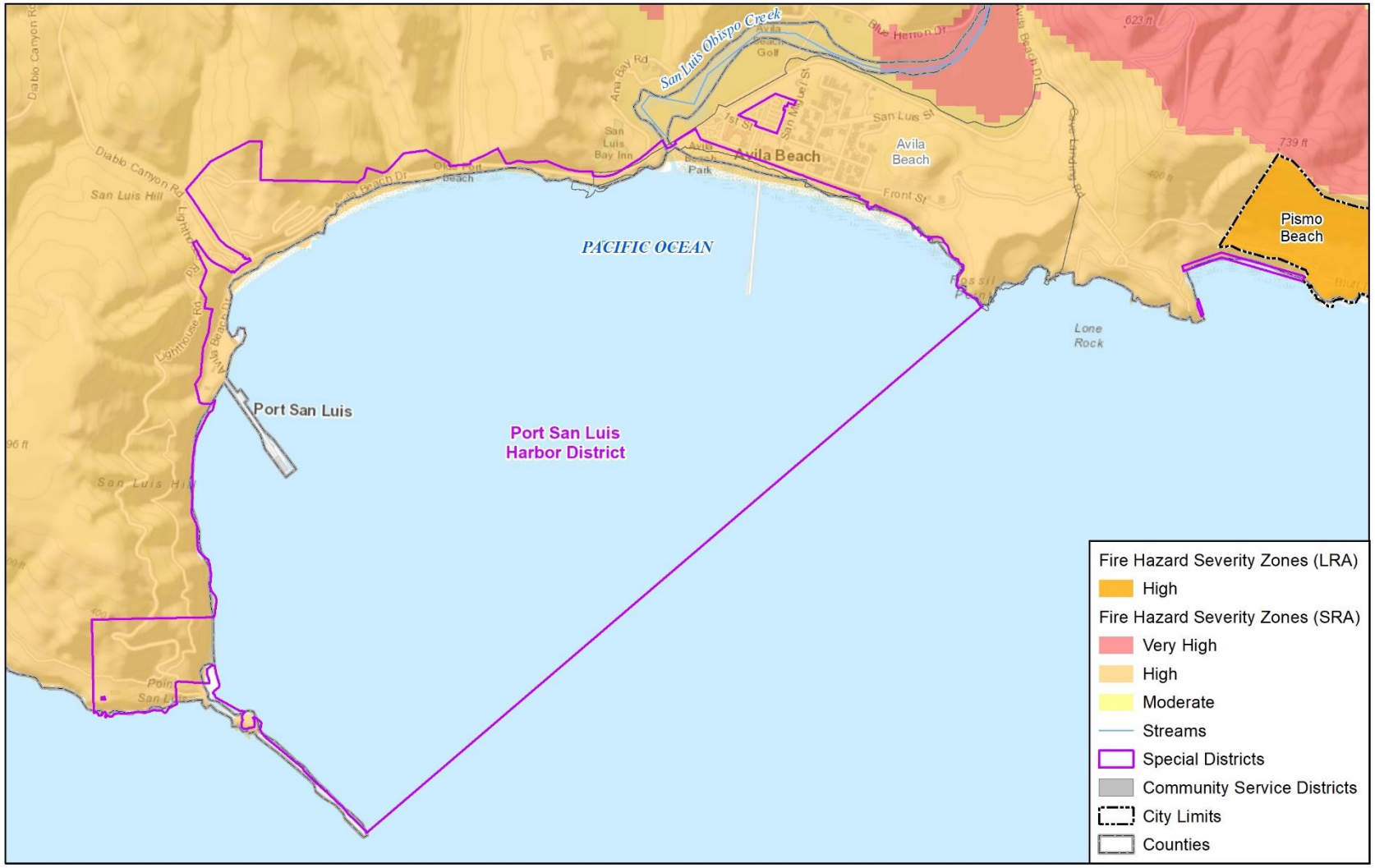
Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County, Port San Luis Harbor District, California Geological Survey, Department of Conservation

S.3.3.10 Wildfire

The overall significance rating for wildfire is a **Medium Significance** for the Port San Luis Harbor District. There is no fire history in the community but due to factors such as the Irish Hills, a notable topographic feature north of Avila Beach, CalFire has designated the Avila Beach community as being at an increased risk from wildfires and a priority community to work with to prepare and mitigate potential fire risk. Because of the Port District's slight boundary overlap with Avila Beach as well as proximity to said Community Services District, these community designations are important for the Port District to observe and keep in mind. The prevailing wind patterns are another dominant factor that influences the wildfire risk in the Avila Beach and Port District areas, as the planning team noted that there are lots of fuel sources in the canyon to Avila Beach. A fire that originates in the Los Osos area or at the Diablo Canyon Power Plant could be pushed by prevailing winds southeast towards the District and nearby communities (San Luis Obispo County Community Wildfire Protection Plan 2019).

Figure S-8 below show the San Luis Harbor District Fire Hazard Severity Zones.

Figure S-8 Port San Luis Harbor District Fire Hazard Severity Zones



Map compiled 4/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County, Port San Luis Harbor District,
CAL FIRE, Phase 3 as Identified by the Office of the State Fire Marshal March 10, 2025,
FHSZSRA_23_3, FHSZLRA25_Phase3_v1

S.3.3.11 Human Caused: Hazardous Materials

While the Avila Beach community has a history of hazardous material incidents, the Cal OES Warning Center does not specifically report any hazardous materials incidents within the district boundaries from January 2019 through December of 2024. Cal OES does report 15 incidents in unincorporated San Luis Obispo County, some of which may cross the district boundaries. Similarly, some of the 20 hazardous materials incidents reported in Avila Beach might fall within the district. However, a lack of data makes it difficult to know if any of those took place within the Port's jurisdiction. As noted in Section 5.3.13, only around 6% of reported hazardous materials incidents result in injuries, fatalities, or evacuations.

The California State Water Resources Control Board has identified seven sites with hazardous materials that may contaminate groundwater supplies in the Avila Beach community, just east of the district. A total of six of the identified Avila Beach sites have been closed and one remains an open case, site of the former Unocal Tank Farm site which contained 22 storage units for over ninety years and were a dominating visual feature in Avila Beach. After an oil spill caused by Unocal (a subsidiary of Chevron) resulted in extensive cleanup of Avila Beach including removing and rebuilding the entire commercial district, the tanks were removed, and the Tank Farm site was used to support the cleanup efforts. Today, the area is the one industrial zone property in Avila Beach and is completely fenced off to the public. Chevron maintains the sewage disposal system and fire protection facilities for the site and receives water from the Avila Beach Community Services District.

The Diablo Canyon Nuclear Power Plant, the state's only operating nuclear power plant, is located west of Avila Beach. Accidental release of nuclear materials continues to be a concern for the Avila community, although the Power Plant has extensive seismic monitoring and safety systems in place and has been retrofitted to withstand a 7.5 magnitude earthquake. Avila Beach Drive is currently the only access to the Diablo Canyon Power Plant, which has also caused concern within the community if an evacuation were to happen. The Diablo Canyon Nuclear Power Plant is not closed as of April 2025. Although the original plan was to shut down the plant by 2025, recent legislative and regulatory actions have extended its operation. In 2022, California lawmakers passed Senate Bill 846, allowing the plant to remain open, with Unit 1 licensed through October 31, 2029, and Unit 2 through October 31, 2030. The County of San Luis Obispo Office of Emergency Services has done extensive planning in case of an emergency at the Power Plant. Refer to Section 5 of the Base Plan for more information.

S.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

To develop this capability assessment, the jurisdictional planning representatives used a matrix of common mitigation activities to inventory policies or programs in place. The team then supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contributed to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional planning representatives and Wood consultant team staff to update information where applicable and note ways in which these capabilities have improved or expanded. In summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The Port San Luis Harbor District's capabilities are summarized below.

S.4.1 Regulatory Mitigation Capabilities

Table S-7 identifies existing regulatory capabilities the District has in place to help with future mitigation efforts. Note that many of the regulatory capabilities which can be used for the District are within the County's jurisdiction. Refer to Section 6 Capability Assessment of the Base Plan for specific information related to the County's overall mitigation capabilities.

Table S-7 Port San Luis Harbor District Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	N/A	
Zoning ordinance	N/A	
Subdivision ordinance	N/A	
Growth management ordinance	N/A	
Floodplain ordinance	N/A	
Other special purpose ordinance (stormwater, water conservation, wildfire)	N/A	
Building code	N/A	
Fire department ISO rating	N/A	
Erosion or sediment control program	N/A	
Stormwater management program	Yes	SWPPP updated in 2015
Site plan review requirements	N/A	
Capital improvements plan	Yes	
Economic development plan	No	
Local emergency operations plan	Yes	
Other special plans	Yes	Sewer spill and oil spill plans. Diablo NPP prep. Avila Beach/Port San Luis Harbor District Sea-Level Rise Vulnerability Assessment 2020
Flood Insurance Study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

Discussion on Existing Building Codes, Land Use and Development Regulations

Chapter 8 of the Port San Luis Harbor District Code of Ordinances governs and use and development regulations for the district. These regulations apply to all development, and the use of all lands and facilities under the ownership and jurisdiction of the Port San Luis Harbor District, including but not limited to the Harford, Unocal, and Avila Piers, certain beach and bluff areas adjacent to San Luis Obispo Bay and properties within the Town of Avila Beach owned by the Harbor District and/or identified by the Port San Luis Harbor District Master Plan. The provisions of this chapter apply in addition to any applicable requirements of the County of San Luis Obispo or the California Coastal Commission.

S.4.2 Administrative/Technical Mitigation Capabilities

Table S-8 identifies the personnel responsible for activities related to mitigation and loss prevention in the Port San Luis Harbor District.

Table S-8 Port San Luis Harbor District Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Planner/engineer with knowledge of land development/land management practices	Yes	Facilities Dept. – Fac. Mgr. & Planner/Analyst
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	Facilities Dept. – Fac. Mgr. & Fac. Supervisor
Planner/engineer/scientist with an understanding of natural hazards	Yes	Facilities Dept. – Fac. Mgr. & Planner/Analyst
Personnel skilled in GIS	Yes	Facilities Dept. – Fac. Mgr. & Planner/Analyst
Full time building official	Yes	Facilities Dept. – Fac. Mgr. & Fac. Supervisor
Floodplain manager	No	Not required
Emergency manager	Yes	Harbor Patrol & Facilities Dept. Planner/Analyst
Grant writer	Yes	Harbor Manager & Facilities Dept.
Other personnel	Yes	Harbor Patrol & Business Manager
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Facilities Dept. – Fac. Mgr. & Planner/Analyst
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	Harbor Patrol – Reverse 911 and CMS Board

S.4.3 Fiscal Mitigation Capabilities

Table S-9 identifies financial tools or resources that the district could potentially use to help fund mitigation activities.

Table S-9 Port San Luis Harbor District Fiscal Mitigation Capabilities

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Community Development Block Grants	No
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activities	Yes
Withhold spending in hazard prone areas	No

S.4.4 Mitigation Outreach and Partnerships

The District has a Harbor Commission composed of five elected Commissioners. The Avila Beach Community Service District, which serves the neighboring town, shares many core values and goals as the Harbor District. Together the two Districts run a responsible resource use outreach programs to encourage conservation and efficiency of water use, for example, by sending out public notices encouraging conversation and responsible use. The Districts also jointly share the operation and maintenance costs of the Wastewater Treatment Plant.

S.4.5 Opportunities for Enhancement

Based on the capability assessment, the Port San Luis Harbor District has several existing mechanisms in place that help to mitigate hazards. There are also opportunities for the District to expand or improve on these policies and programs to further protect the community. Future improvements may include providing training for staff members related to hazards or hazard mitigation grant funding in partnership with the County and Cal OES. Additional training opportunities will help to inform District staff and board members on how best to integrate hazard information and mitigation projects into the District policies and ongoing duties of the District. Continuing to train District staff on mitigation and the hazards that pose a risk to the Port San Luis Harbor District will lead to more informed staff members who can better communicate this information to the public.

S.5 Mitigation Strategy

S.5.1 Mitigation Goals and Objectives

The Port San Luis Harbor District adopts the hazard mitigation goals and objectives developed by the County HMPC and described in Section 7 Mitigation Strategy.

S.5.2 Progress on 2019 Mitigation Actions

During the 2025 planning process the Port San Luis Harbor District LPT reviewed all the mitigation actions from the 2019 plan. The LPT identified that one action which has been completed, described in Table S-10.

Table S-10 Port San Luis Harbor District Completed 2019 Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
PS.10	Adverse Weather: High Winds, Hail	Use GIS to develop vulnerability assessment model of structures at risk of damage from high winds; replace roofing systems nearing end of expected lifespan with PVC roofing systems to minimize damage and prevent uplift. Reinforce and upkeep Harford Pier Canopy to prevent wind related damage and failure.	Port San Luis Harbor District	Completed. 2 of the structures at the end of Harford Pier were reroofed in 2019 and 2022. Old Ice House (Ice House Fish Co. building) reroofed in 2019 with flat-top, heat-welded PVC roofing system; the Warehouse Canopy structure's roof was redone in 2022 with same type of flat-top, heat-welded PVC system and a new fall protection anchoring system was installed. Additional structural reinforcement to warehouse structure's columns and shear walls to be addressed during reconstruction of west side of pier (est'd 2025-2027).

S.5.3 Mitigation Actions

The planning team for the Port San Luis Harbor District identified and prioritized the following mitigation actions based on the risk assessment. Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. Refer to Table S-11 below of the Port San Luis Harbor District's 2025 Mitigation Action Plan.

Table S-11 Port San Luis Harbor District's Mitigation Action Plan

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
PS.1	Adverse Weather: Thunderstorm, High Wind, Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise, Tsunami, Earthquake	Future Avila Pier Replacement. Develop replacement plan; remove wooden pier; replace pier with structure able to withstand sea level rise and heavy storms and waves, ideally with stronger materials like concrete and steel.	Port San Luis Harbor District Facilities	Over $1,000,000. Coastal Conservancy; CA Division of Boating and Waterways (DBW); CA Wildlife Conservation Board (WCB); CA Parks and Rec	Low	More than 5 yrs.	Not Started. Long-term goal that may be incorporated into future PSLHD Port Master Plan update
PS.2	Adverse Weather: Thunderstorm, High Wind, Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise, Tsunami	Revetment and Jetty Augmentation. Survey existing jetty; develop repair and augmentation plan; repair or replace revetment and jetty. Possibly replace with seawall or install seawall on top of existing jetty.	Port San Luis Harbor District Facilities	$500,000 to $1,000,000. Division of Boating and Waterways; SLOCOG; PSLHD	High	2-5 yrs.	In Progress. Revetment surveyed in October 2020 by coastal engineers; condition assessment report and conceptual design plans for repair/improvements finalized in April 2021. Storm damages (early 2023) resulted in loss of additional rock armoring and base materials. 60% design plans with engineered cost estimates issued in July 2023 (cost estimates updated to $3m-$4m). Applied for BRIC funding in 2020/21 and again in 2022/23 but was advised by Cal OES project is not competitive without economic feasibility study and/or comprehensive data to support claim that project directly serves disadvantaged community populations and commercial fishing

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
							industry; did not proceed with full BRIC applications. Project on hold until funding can be identified.
PS.3	Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise; Flood; Landslide; Earthquake	Avila Beach Revetment Repairs to ensure Avila Beach Drive doesn't fail due to erosion and undermining.	County of SLO; Port San Luis Harbor District Facilities; Avila Beach CSD	Over $1,000,000. County of SLO; SLOCOG; PSLHD;	Medium	More than 5 yrs.	Not Started. Requires interagency coordination; County of SLO must initiate repairs to sloughing and undermined revetment / rock armoring along Avila Beach Drive
PS.4	Adverse Weather: Thunderstorm, Coastal Storm; Flood, Hazmat	Avila Beach Drainage Station. Come up with a solution for drainage in Avila Beach which accumulates along Beach Colony Lane and the Avila Parking Lot; install pump station or diversion for flood waters; identify funding for long-term operations and maintenance.	County of SLO; Port San Luis Harbor District Facilities; Avila Beach CSD; Avila Beach property owners	$500,000 to $1,000,000. SLO County; property owners; FEMA HMA	Medium	More than 5 yrs.	Unknown status - flooded areas are within County's jurisdictional right of way in town of Avila Beach
PS.5	Coastal Storm/Coastal Erosion/Coastal Flooding and Inundation/Sea Level Rise; Tsunami	Avila Pier Rehabilitation. Develop replacement plan; repair damaged piles and above water pier structure; open full pier to public.	Port San Luis Harbor District Facilities	Over $1,000,000. Coastal Conservancy; DBW; WCB; CA Parks and Rec	Medium	2-3 yrs.	In Progress. Pier repair plans completed in 2021; development permits, regulatory authorizations, and multiple grant awards secured 2020-2024; rehabilitation work began July 2022 and approximately half of structural work completed as of January 2025. Estimated completion

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
							date of pier structural rehab is 2027 (due to seasonal construction limitations with permits). Severe coastal storms 2022-2024 and significant tidal surge in late 2024 damaged additional areas of pier superstructure, boat landing, and timber piles. PSLHD staff has tried to secure FEMA's Public Assistance (with Section 406) funds since 2023 to address rapid deterioration of impacted pier components, incorporate additional mitigations, and implement structural improvements to prevent future pier failures; funding obligations for this work are still pending under FEMA's PA program as of January 2025. Last 3 bent sections (~45-60 feet) of pier at seaward edge are in jeopardy of collapse due to historic swell in early 2025; temporary stabilization measures in place to prevent collapse until funding secured to hire qualified contractors to complete the advanced replacements at end of pier.
PS.6	Earthquake	Harbor Patrol and staff to review Harbor District's Emergency Action Plan and procedures periodically and maintain a hardcopy on-site	Port San Luis Harbor District Business	Little to No Cost; Staff Time	Medium	Annually	Annual Implementation. EAP periodically updated by PSLHD staff; earthquake section revised for new assembly areas in 2022 and utility shutoffs in 2022.

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
PS.7	Landslide, Earthquake	Reinforce and maintain revetment below and hillside above Avila Beach Drive to prevent road failures and closures due to earthquake caused landslides	County of SLO, Port San Luis Harbor District Business	Over $1,000,000. County of SLO; SLOCOG; PSLHD;	Medium	2-5 yrs.	Not Started. See PS.3 comments above. Status of seismic reinforcement actions unknown; hillside and revetment are within County's jurisdiction and will require interagency coordination.
PS.8	Wildfire	Continue weed abatement and maintaining defensible space on Harbor District properties	Port San Luis Harbor District Facilities	$10,000; Staff Time, District Funds	Medium	Annually	Annual Implementation. Maintenance staff from PSLHD completes weed abatement seasonally using existing heavy equipment and rental equipment, as needed. Continued / ongoing.
PS.9	Tsunami	Harbor Patrol and staff to review County's Tsunami Response Plan and procedures periodically and maintain a hardcopy on-site	Port San Luis Harbor District Harbor Patrol	Little to No Cost; Staff Time	High	1-2 yrs.	Not Started. County's Tsunami Emergency Response Plan last updated in 2016; copy of this plan is maintained on-site at PSLHD, but no newer version has been released to PSLHD from County to date
PS.10	Adverse Weather: Thunderstorm, Dense Fog	Maintain maritime visual navigation aids: 6 USCG lighted channel markers and Point San Luis Lighthouse; provide boaters, fishermen, and staff with weather forecasts. Use storm lights on Harford Pier during extreme fog.	Port San Luis Harbor District Harbor Patrol	$50,000-$75,000. District funds	Low	1-2 years	In Progress. Continue lightning rod maintenance, include written procedure in PSLHD's Storm Binder for inspecting rods prior to rain season (end of August)
PS.11	Adverse Weather: Thunderstorm, Lightning	Maintain and periodically review Emergency Action Plan and Fire Plans. Maintain lightning rods on Harford Pier.	Port San Luis Harbor District Business	Little to No Cost; Staff Time, District funds	Low	Annually	Annual Implementation. Annual / seasonal heat illness prevention training provided to employees; Heat Illness Prevention Plan (HIPP) developed in 2020 and needs to be refined by new management for any revisions

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
PS.12	Adverse Weather: Extreme Heat	Provide seasonal training to staff on the Heat Illness Prevention Plan (HIPP) and update plan as needed	Port San Luis Harbor District Business	Little to No Cost; Staff Time, District funds	Low	Annually	In Progress. See PS.10 comment above; canopy structure was inspected, and structural capacity was assessed by coastal engineers in August 2020; report with findings issued March 2021 and recommended reinforcement options / conceptual repair plans issued in August 2021. Rebuilding of pier beneath canopy structure has been in progress since late 2021 and is ongoing as weather, funding, and construction staff/equipment permit. Canopy structural components / framing have not been replaced as of January 2025. Rebuilding western portion of canopy structure is identified as part of the Harford Pier Redevelopment capital project in District's budget, entire project expected to take between 3-5 years to complete.
PS.13	Adverse Weather: High Wind	Assess the historic canopy at the end of the Harford Pier for reinforcement and repair options.	Port San Luis Harbor District Facilities	Little to No Cost; Staff Time, District funds	Low	2-5 years	Not Started. Long-term goal that may be incorporated into future PSLHD Port Master Plan update

S.6 Implementation and Maintenance

Moving forward, the Port San Luis Harbor District will use the mitigation action table in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Chapter 8 in the Base Plan.

S.6.1 Incorporation into Existing Planning Mechanisms

The information contained within the Base Plan and this Annex, including results from the Vulnerability Assessment and the Mitigation Strategies, will be used by the Port San Luis Harbor District to help inform updates of the District's relevant plans and planning documents, and in the development of additional local plans, programs, and policies. Understanding the hazards that pose a risk and the specific vulnerabilities to the community will help in future capital improvement planning for the District. The San Luis Obispo County Planning and Building Department may utilize the hazard information when reviewing a site plan or other type of development applications with the boundaries of the Port San Luis Harbor District and surrounding areas. As noted in Chapter 8 Implementation and Monitoring, the County's HMPC representative/s from the Port San Luis Harbor District will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual HMPC and local planning team review meetings.

S.6.2 Monitoring, Evaluation and Updating the Plan

The Port San Luis Harbor District will follow the procedures to monitor, review, and update this plan in accordance with San Luis Obispo County as outlined in Chapters 3 Planning Process and Chapter 8 Implementation and Monitoring of the Base Plan. The District will continue to involve the public in mitigation, as described in Section 8.3 of the base plan. The Port San Luis Harbor District Facilities Manager will be responsible for representing the District in the County HMPC, and for coordination with County staff and departments during plan updates. The Port San Luis Harbor District realizes it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirements as well as other State of California requirements.

S.7 Attachment: Property Inventory for Program Year 2024-2025

Special District Risk Management Authority

SDRMA

Property Inventory for Program Year 2024-25

Port San Luis Harbor District

Item	Description	Address	Square Feet	Building Value	Contents Value	Under Construction	BIRI	BIRI Coverage	Net Premium	Effective Date	Termination Date
1	Accounting Office	Harbor Terrace	1,568	$27,019	$12,836				$180		
8	Avila Bait Shop	Avila Pier - Front Street	496	$64,441	$0				$290		
12	Avila Pier	Avila Pier	47,700	$10,964,433	$0				$49,403		
18	Canopy over Restaurant	Harford Pier	14,280	$1,013,212	$12,836				$4,623		
20	Coastal Gateway Building	3900 Avila Beach Drive	2,470	$2,026,422	$128,358				$9,709		
22	Diesel Facility/Pump Out	Harford Pier	100	$93,080	$0				$419		
33	East Duplex - Caretakers	Lighthouse Properties	1,550	$506,606	$0				$2,283		
39	Fat Cat's Restaurant	3290 Avila Beach Drive	1,600	$648,455	$0				$2,922		
48	Floating Docks (3) @$18,500 ea.	Harford Pier	0	$90,404	$0				$407		
53	Fuel Facility/HazMat	Avila Beach Drive	200	$33,627	$6,417				$180		
60	Harbor Office/Restrooms	3950 Avila Beach Drive	2,200	$762,216	$151,185				$4,116		
64	Harbor Patrol Office/Cold Storage	3991 Avila Beach Drive - Harford Pi	3,520	$652,881	$102,687				$3,404		
68	Harford Pier	Harford Pier	87,500	$23,500,083	$0				$105,886		
70	Historic Lighthouse- West Duplex	Lighthouse Properties	1,845	$709,249	$0				$3,196		
74	Horn House	Lighthouse Properties	1,900	$641,701	$16,301				$2,965		
78	Ice House	Harford Pier	1,800	$486,342	$0				$2,191		
84	Lifeguard Bldg. & Restrooms	Avila Pier - Front Street	2,000	$418,795	$38,361				$2,060		
87	Lifeguard Towers	Avila Pier - Front Street	100	$108,008	$0				$487		
98	Lighthouse	Lighthouse Properties	2,190	$2,026,422	$128,358				$9,709		
99	Lighthouse Barn/ Maint. Bldg.	Marlin Stebbins Road	200	$67,548	$0				$304		
104	Lighthouse Service Bldg	Marlin Stebbins Road	900	$303,963	$0				$1,370		
109	Maintenance Office Loft EOP	Avila Beach Drive	2,400	$662,411	$403,509				$4,803		
110	Mersea Restaurant	3985 Avila Beach Dr.	1,800	$675,474	$0				$3,044		
111	Mobile Hoist Pier	Harford Landing Area	60	$675,474	$0				$3,044		
112	Mooring Storage Shed	3950 Avila Beach Drive	900	$67,548	$64,179				$594		
119	Olde Port Inn Restaurant	3993 Avila Beach Drive - Harford Pi	8,372	$2,311,388	$0				$10,415		
124	OPB Restrooms	Avila Beach Drive	400	$182,378	$0				$822		
128	Outbuilding	Lighthouse Properties	100	$21,552	$0				$97		
133	Patriot Sport Fishing Office	3975 Avila Beach Drive - Harford Pi	400	$49,721	$0				$224		
137	Pavement/Lighting/Pipes (above ground)	Avila Beach Drive	0	$304,688	$0				$1,373		
141	Pavement/Lighting/Pipes (above ground)	Harbor Terrace	0	$69,216	$0				$312		
145	Pavement/Lighting/Pipes (above ground)	Harford Pier	0	$104,022	$0				$469		
156	Pier Restroom	Avila Pier - Front Street	175	$182,378	$0				$822		
165	Sewer Lift Station #1	Harford Pier	0	$53,345	$0				$240		
167	Sewer Lift Station #2	Harford Parking Lot	150	$135,094	$32,089				$753		
170	Sewer Lift Station #3	Avila Beach Drive	150	$405,284	$102,687				$2,289		
175	Sewer Lift Station #4	Avila Pier - Front Street	150	$88,143	$19,253				$484		
176	Sewer Lift Station #5	3915 Avila Beach Dr.	0	$54,039	$0				$243		
190	Sport Launch Bldg.	3920 Avila Beach Drive	1,500	$675,474	$0				$3,044		

This is a listing of your currently scheduled items with SDRMA

Special District Risk Management Authority
1112 I Street Suite 300, Sacramento, California 95814-2865
Tel 916.231.4141 or 800.537.7790 Fax 916.231.4111
www.sdrma.org

Report Date: 05/20/2025
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Special District Risk Management Authority

Property Inventory for Program Year 2024-25

Port San Luis Harbor District

Item	Description	Address	Square Feet	Building Value	Contents Value	Under Construction	BIRI	BIRI Coverage	Net Premium	Effective Date	Termination Date
196	Sport Launch Fuel Facility	3915 Avlia Beach Drive	120	$37,009	$0				$167		
205	Water Tank/Domestic Well	Lighthouse Properties	0	$81,058	$0				$365		
211	Water Tower 100k. gal./Booster Pump	Harbor Terrace	0	$278,518	$0				$1,255		
		Totals		**$52,259,121**	**$1,219,056**						

This is a listing of your currently scheduled items with SDRMA

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Report Date: 05/20/2025
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Annex T San Luis Obispo Flood Control and Water Conservation District

T.1 District Profile

The San Luis Obispo County Flood Control and Water Conservation District (FCWCD, and "District") was established in 1945. The FCWCD provides a range of services focused on managing water resources and reducing flood risk throughout the County. Key services include flood control planning and infrastructure maintenance, stormwater and drainage management, and floodplain management in coordination with local, state, and federal agencies. The District also oversees water conservation efforts, supports regional water supply planning, and monitors both surface and groundwater resources, especially in compliance with the Sustainable Groundwater Management Act (SGMA). Additional services include watershed planning and restoration, water quality monitoring, and implementation of stormwater quality programs. The District also offers administrative and technical support to local water districts and zones, manages grant funding for water and flood-related projects, and collaborates with cities, community services districts, and other stakeholders to support sustainable water management and flood resilience across San Luis Obispo County.

The FCWCD implements and oversees the following funds and programs

- Nacimiento Water Operating 2200002000
- Flood Control Zone 3 2200500000
- Salinas Dam 2300000000
- State Water Contract 2300500000
- State Water Project 2300501000
- San Luis Obispo County Flood Control (aka Zone General) 1300000000
- Flood Control Zone 1 1300500000
- Flood Control Zone 1A 1301000000
- Flood Control Zone 4 1301500000
- Flood Control Zone 9 1302000000
- Flood Control Zone 16 1302500000
- Flood Control Zone 18 1303000000

T.1.1 Mitigation Planning History and 2025 Process

This annex was created during the development of the 2019 San Luis Obispo County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) update to focus on the capabilities, hazards and mitigation actions specific to the District and was updated in 2025. The District also participated in the 2014 San Luis Obispo County Hazard Mitigation Plan. The 2025 version of the MJHMP was used to confirm the requirements of Senate Bill 552 (drought resilience planning) met in previous versions, underlining what remaining requirements still need to be met through the latest update of the MJHMP, Master Water Report (MWR), and/or additional work through District staff and related consultants. The 2019 MJHMP was also referenced when applying for the Federal Emergency Management Agency's Building Resilient Infrastructure and Communities (BRIC) and the Pre-Disaster Mitigation (PDM) grants, as well as FEMA Public Assistance in addressing storm damages.

The two Deputy Directors of County Public Works represented the District on the County Hazard Mitigation Planning Committee (HMPC) and took the lead for developing the plan this annex in coordination with the FCWCD Local Planning Team (LPT). After recent severe storm events, which caused widespread damage through flooding, there has been an increased

focus on hazard mitigation projects related to protecting water supply systems, upsizing culverts, improving low water crossings, maintaining existing levees, sediment removal, and vegetation management in creeks and other stormwater channels.

The FCWCD LPT will be responsible for implementation and maintenance of the plan. Table T-1 summarizes the FCWCD's LPT for the plan revision process.

Table T-1 San Luis Obispo Flood Control & Water Conservation District Hazard Mitigation Planning Team

STAKEHOLDER GROUP	DEPARTMENT OR STAKEHOLDER	TITLE
Local Planning Team	Resources Management Group	Deputy Director
	Transportation & Development Group	Deputy Director
	Water Utilities	Division Manager
	Wastewater Utilities	Division Manager
	Transportation	Division Manager
	Development	Division Manager
	Water Resources	Division Manager
	Water Resources	Supervising Engineer
	Water Resources	Engineer
Agencies involved in hazard mitigation activities	SLO Fire Safe Council	Executive Director
	County of SLO OES	Emergency Services Coordinator
	County of SLO OES	Director
Agencies that have the authority to regulate development	Public Works Planning & Building	Division Manager, Long-Range Planning
	Public Works Planning & Building	Planner and Architect
Neighboring Communities	Santa Barbara County FCWCD	Manager
	County of Santa Barbara Water Agency	Manager
Representatives of business, academia, and other private orgs	Water Resources Advisory Committee	Supervising Water Resources Engineer
	Water Resources Advisory Committee	Chair
	Water Resources Advisory Committee	Staff
Representatives supporting underserved communities	El Camino Homeless Organization	Shelter Manager
	Community Action Partnership of SLO	Chief Operating Officer
	5Cities Homeless Coalition	Executive Director

More details on the planning process followed and how the jurisdictions, service districts and stakeholders participated can be found in Chapter 3 of the Base Plan, as well as how the public was involved during the 2025 update.

T.1.2 Geography and Climate

The District boundaries are the same as the County's boundaries. The County's diverse topography, which includes coastal plains, inland valleys, mountain ranges, and arid regions, creates a range of water management challenges across different watersheds. Coastal and

low-lying areas are more vulnerable to flooding, requiring flood control infrastructure and drainage systems, while inland and southern areas experience more variable precipitation and are prone to drought. The County's Mediterranean climate, characterized by hot, dry summers and mild, wet winters, results in seasonal water availability that affects both surface and groundwater supplies. These conditions drive the need for sustainable water resource management, including reservoir operations, groundwater recharge projects, and stormwater capture. Additionally, the semi-arid nature of some inland areas places greater demand on groundwater basins, many of which are monitored and managed under SGMA.

The District established the following major flood control zones to manage water resources and reduce flood risk throughout the County:

Zone 1/1A – Arroyo Grande Creek Channel: This zones focuses on flood control for the Arroyo Grande and Los Berros channels near the City of Arroyo Grande and community of Oceano. The District has developed a long-term maintenance plan for these channels to improve flood protection. In 2006, a funding mechanism (parcel-based levy assessment) was approved, providing $350,000 annually to support enhanced maintenance and operations in this area.

Zone 3 – Lopez Water Project: Zone 3 covers the Five Cities area (Arroyo Grande, Avila Beach, Grover Beach, Oceano CSD, and Pismo Beach). In this zone, the District manages the Lopez Water Project, which includes Lopez Lake and Dam, Lopez Terminal Reservoir, Lopez Water Treatment Plant, and Distribution System. It acts as a wholesale water supplier to the participating communities.

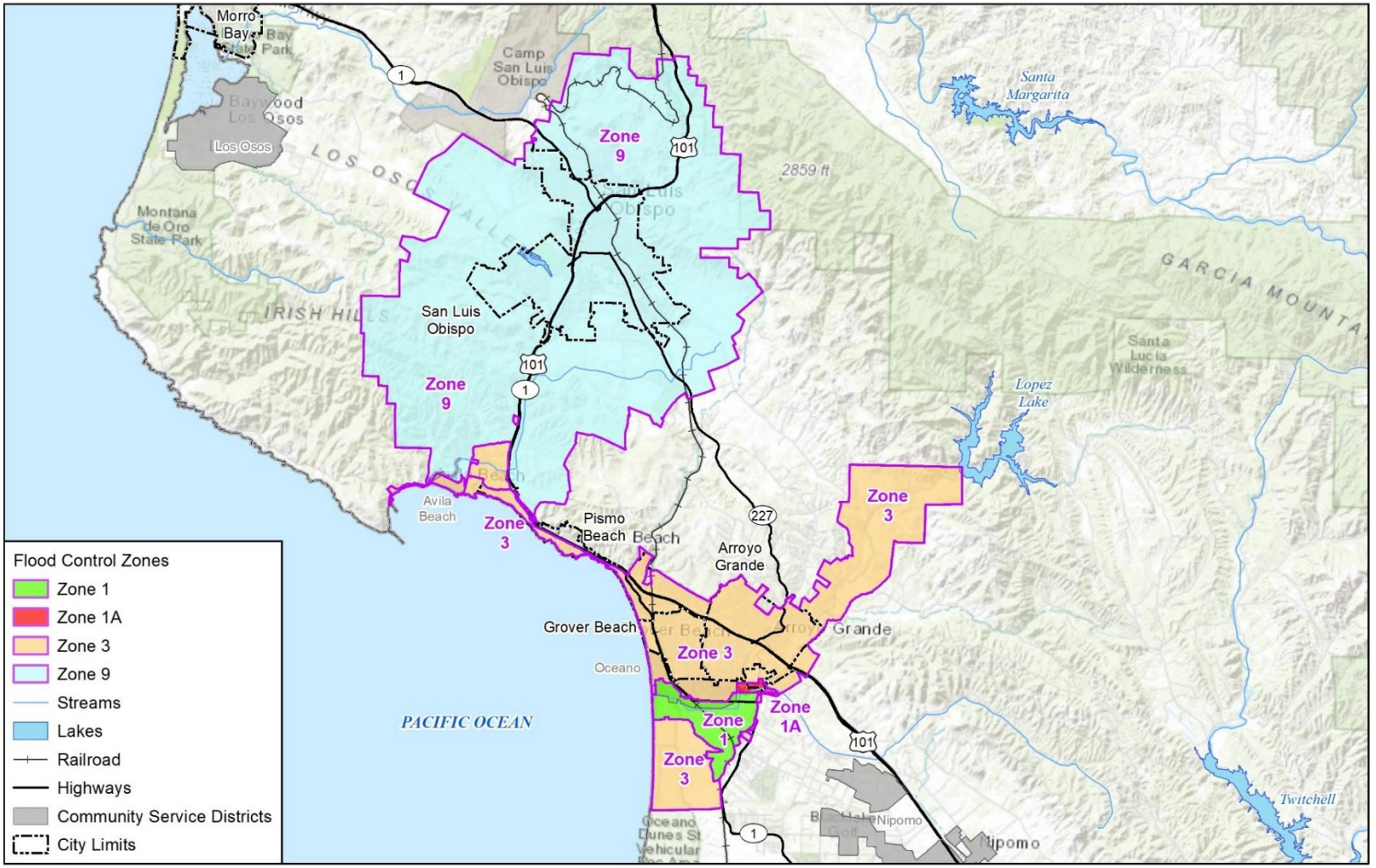
Zone 9 – San Luis Obispo Creek: Zone 9 includes the San Luis Obispo Creek and its tributaries, which are prone to flooding and erosion. To manage these issues, the District provides flood control services and developed the San Luis Obispo Waterway Management Plan in 2003. This plan consists of three volumes:

- Volume I: Technical analysis and identification of flooding and habitat issues.
- Volume II: Stream management and maintenance program using best practices.
- Volume III: Drainage design criteria for stormwater infrastructure.

These zones are detailed in

Figure T-1 below

Figure T-1 Flood Control and Water Conservation District Flood Zones



Map compiled 5/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
Flood Control and Water Conservation District

T.1.3 History

The San Luis Obispo County FCWCD was founded in 1945 with the purpose "to provide for control, disposition, and distribution of flood and storm waters of the District and of streams flowing into the District." The District provides general funding to help communities identify flooding problems, recommend solutions, and help implement projects and establish zones of benefit to fund specific mitigation projects.

In 1968, the FCWCD adopted Resolution No. 68-223 that defined the policy role of the FCWCD relating to the costs of planning, design, construction, operations and maintenance of drainage and flood control facilities. In general, the FCWCD cannot be responsible for direct funding of community specific mitigation improvements. The FCWCD uses its general funding to identify flooding problems, recommend solutions, and help local areas implement recommended solutions. In 2016, the FCWCD adopted Resolution 2016-281 that superseded the 1968 Policy to include among other things considerations for the changes in public financing laws such as Proposition 218.

T.1.4 Economy

The District's total budget has varied since the last plan update. From fiscal year (FY) 2020–21 to FY 2021–22, the budget increased modestly from $5.2 million to $5.6 million. It then rose more significantly in FY 2022–23 to $7.4 million, likely due to increased project activity or emergency response needs. In FY 2023–24 and the proposed FY 2024–25 budget, funding stabilized at approximately $6.3 million, funded by a mix of property taxes, service charges, and grants. Additional resources are being directed toward emergency repairs, capital projects, and strategic investments to improve resiliency and infrastructure across multiple service areas.

The San Luis Obispo County FCWCD uses U.S. Census data to guide water resource planning, infrastructure development, and public outreach. Population estimates and growth trends help forecast water demand and plan for future needs, while socioeconomic indicators support equitable water pricing and identify communities that may need assistance. Educational attainment data can also inform targeted outreach and conservation efforts. Table T-2 presents selected demographic information relevant to District's service area.

Table T-2 San Luis Obispo County Economic Indicators

INDICATOR	2018	2023	% CHANGE
Median Household Income	$85,789	$93,398	+8.9%
Per Capita Income	$43,480	$49,581	+14.0%
Poverty Rate	13.0%	12.8%	-3.8%
Unemployment Rate	4.6%	5.1%	+10.9%

Source: U.S. Census Bureau American Community Survey 2018-2023, 5-Year Estimates www.census.gov

T.1.5 Population

The District primarily serves:

- Retail water agencies (e.g., in Zone 3, which includes Arroyo Grande, Avila Beach, Grover Beach, Oceano CSD, and Pismo Beach via the Lopez Project).
- Flood-prone communities receiving stormwater and channel maintenance services (e.g., Zones 1/1A, and 9).
- Lakeside users and participating agencies of the Nacimiento Water Project.

Table T-3 below provides a snapshot of key demographic and housing characteristics in San Luis Obispo County, comparing data from 2018 and 2023. Additionally, Table T-3 below provides a snapshot of key demographic and housing characteristics in San Luis Obispo County, comparing data from 2018 and 2023. These indicators help illustrate trends that inform the County's water resource planning, infrastructure investment, and community engagement strategies. Understanding shifts in population, age distribution, household composition, and housing types enables the San Luis Obispo County FCWCD to better anticipate water demand, identify service needs, and support equitable program delivery across the region.

Table T-3 San Luis Obispo County FCWCD Demographic and Housing Characteristics

CHARACTERISTIC	2018	2023	% CHANGE
Population	281,455	281,486	0.0%
Median age	39.1	40.2	+2.8%
Percent over 65 years old	18.7%	21.6%	+15.5%
Percent under 5 years old	4.8%	4.4%	-8.3%
Average household size	2.50	2.47	-1.2%
Total housing units	121,095	124,871	+3.1%
Housing vacancy rate	13.0%	12.8%	-1.5%
Housing type: 1-unit	73.3%	73.9%	+0.8%
Housing type: 2-units	3.1%	3.1%	0.0%
Housing type: 3 or 4 units	5.2%	5.5%	+5.8%
Housing type: 5 to 9 units	4.2%	3.7%	-11.9%
Housing type: 10 to 19 units	2.5%	2.3%	-8.0%
Housing type: 20 or more units	3.5%	3.8%	+8.6%
Housing type: Mobile home	8.0%	7.7%	-3.8%
Housing type: Boat, RV, van, etc.	0.2%	0.1%	-50.0%
Housing characteristic: lacking complete plumbing facilities	67.1%	0.3%	-99.6%
Housing characteristic: lacking complete kitchen facilities	32.9%	0.7%	-97.9%

Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/

T.1.6 Development Trends

Over the past five years since the last update of this plan development in the County has primarily been residential. New housing projects face increased requirements to support hazard mitigation, such as low impact development standards. While the specific impacts of flooding and drought vary by location, they remain key concerns for all new developments. Looking ahead, both population and development are expected to grow, including near creeks and waterways, which will increase vulnerability to related hazards. Water supply reliability will continue to be a significant issue, especially in groundwater-stressed areas and during drought conditions. Please refer to Section 5 Hazard Identification and Risk Assessment (HIRA) of the Base Plan - Development Trend sub-sections of the Hazard Profiles for more information on development trends.

T.2 Hazard Identification and Summary

The San Luis Obispo County FCWCD LPT identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and

significance specific to the FCWCD, as shown in Table T-4. There are no hazards that are unique to the FCWCD.

Table T-4 Flood Control and Water Conservation District Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: High Wind/Tornado	Limited	Highly Likely	Negligible	Low
Agricultural Pest Infestation and Disease	Limited	Highly Likely	Negligible	Low
Biological Agents (naturally occurring)	Extensive	Occasional	Critical	Low
Dam Incidents	Limited	Occasional	Critical	Medium
Drought and Water Shortage	Extensive	Likely	Critical	High
Earthquake	Extensive	Occasional	Critical	High
Flood	Significant	Likely	Critical	Medium
Landslides and Debris Flow	Significant	Likely	Critical	Medium
Subsidence	Significant	Occasional	Negligible	Low
Tsunami	Significant	Occasional	Limited	Medium
Wildfire	Extensive	Likely	Critical	High
Human Caused: Hazardous Materials	Limited	Highly Likely	Negligible	Medium

Geographic Area	**Magnitude/Severity (Extent)**
Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area Probability of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year or happens every year. Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.	Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact

T.3 Vulnerability Assessment

The intent of this section is to assess the San Luis Obispo FCWCD's vulnerability separate from that of the overall planning area, which has already been assessed in Section 5 Hazard Identification and Risk Assessment in the Base Plan. This vulnerability assessment analyzes the

population, property, and other assets at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area.

The information to support the hazard identification and risk assessment for this Annex was based on the 2025 County HMP supplemented with information collected through a Data Collection Guide, which was distributed to each participating municipality or special district to complete during the planning process. Information collected was analyzed and summarized to identify and rank all the hazards that could impact anywhere within the County, as well as to rank the hazards and identify the related vulnerabilities unique to each jurisdiction. In addition, the FCWCD LPT was asked to share information on past hazard events that have affected the District.

Each participating jurisdiction was in support of the main hazard summary identified in the Base Plan (see Table 5.2). However, the hazard summary rankings for each jurisdictional annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction. Identifying these differences helps the reader to differentiate the jurisdiction's risk and vulnerabilities from that of the overall County.

T.3.1 Other Hazards

While the footprint of the District is the entire county, the focus for mitigation is on district and constituent infrastructure. The following hazards have been removed for further vulnerability and mitigation considerations as they do not have direct impacts on the District infrastructure and are covered by the Base Plan HIRA and mitigation strategy at the County level:

- Adverse Weather: Thunderstorm/Heavy Rain/Hail/Lightning/Dense Fog/Freeze
- Adverse Weather: Extreme Heat
- Coastal Storm/Coastal Erosion/Sea Level Rise
- Land Subsidence

T.3.2 Assets at Risk

This section considers the District's assets at risk, including values at risk, critical facilities and infrastructure, historic assets, natural resources, economic assets, and growth and development trends.

T.3.2.1 Values at Risk

Values at risk include water supply and flood control infrastructure owned or operated by the San Luis Obispo County FCWCD. The assets are discussed below and with notes pertinent to specific hazard concerns where applicable.

T.3.2.2 Critical Facilities and Infrastructure

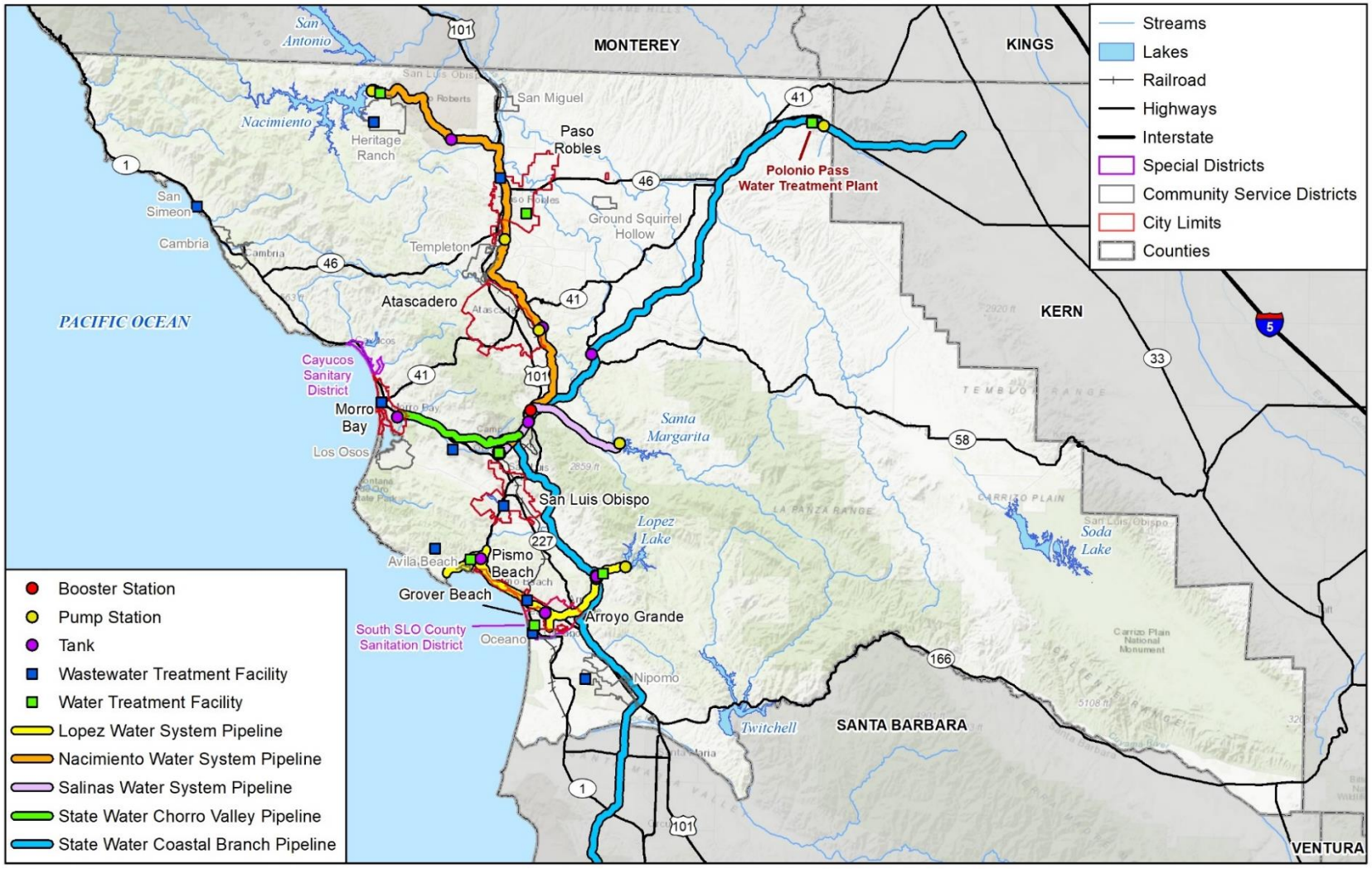
A critical facility is defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. The four types of Critical Facilities categorized by the San Luis Obispo County HMPC are emergency services, high potential loss facilities, lifeline utility systems, and transportation systems. See Section 5 of the Base Plan for more details on the definitions and categories of critical facilities and section 5.2 of the base plan for more information on the assets used throughout this annex and the county-wide analyses.

The District owns and maintains a wide range of infrastructure to support flood control, water supply, and stormwater management across the county. Major infrastructure includes the Arroyo Grande Creek Channel and Los Berros Diversion Channel in Zones 1/1A, which are key to protecting the Oceano community and City of Arroyo Grande from flooding. The District also operates the Lopez Water Project, which consists of Lopez Lake and Dam, Lopez Terminal

Reservoir, Lopez Water Treatment Plant, and Distribution System, which supplies water to the Five Cities area through Zone 3. Infrastructure outside of the flood control zones includes the Nacimiento Water Project, which features the Nacimiento Water Pipeline—currently undergoing permanent repairs after 2023 storm damage. The District also participates in the State Water Project and maintains responsibilities related to water delivery infrastructure and treatment facilities associated with the Polonio Pass Water Treatment Plant. Other critical assets include drainage basins, levees (e.g., in the Santa Maria River area), and hydrologic monitoring stations.

During the 2025 update the District provided GIS data for much of its facility assets that included linear and point data for pipelines and water distribution. The water distribution and treatment system are displayed in the Figure T-2 below, including booster and pump stations.

Figure T-2 San Luis Obispo County Water System



T.3.2.3 Natural Resources

Natural resources play a vital role in the work of the San Luis Obispo County FCWCD. Surface water sources like Lopez Lake, Salinas Reservoir, and Lake Nacimiento are key for local water supply and storage. Groundwater basins are equally important, especially for inland and rural communities that rely on wells. Local creeks, such as Arroyo Grande Creek and San Luis Obispo Creek, are not only important for managing floodwaters but also support natural habitats. Seasonal rainfall and runoff shape how the District manages both drought and flood risk, making these natural systems central to its daily operations and long-term planning.

T.3.3 Estimating Potential Losses

Note: This section details vulnerability to specific hazards of high or medium significance, where quantifiable, and/or where (according to HMPC member and FCWCD LPT input) it differs from that of the overall County.

Impacts of past events and vulnerability to specific hazards are further discussed below (see Section 5 HIRA for more detailed information about these hazards and their impacts on the County as a whole).

T.3.3.1 Adverse Weather: High Wind and Tornado

San Luis Obispo FCWCD's risk and vulnerability to this hazard does not differ significantly from that of the County overall significance of **low**. While these hazards are not common in the region, they can occasionally occur during strong storm systems, particularly in the winter months. The District may experience gusty winds capable of causing minor damage and tornado activity is extremely rare across the county.

Recent events documented in the County's MJHMP illustrate the relevance of these hazards. For example, the Severe Winter Storm (CDAA-2021-05) that occurred from January 26–29, 2021 brought high winds and heavy rain across the county, leading to road closures, though no major damages or injuries were reported. The Severe Winter Storm (DR-4683) from December 27, 2022, to January 31, 2023, caused widespread impacts including flooding, high winds, and rain, resulting in $24.16 million in infrastructure damage and one missing person. More recently, the Severe Winter Storm (DR-4699) from February 21 to July 10, 2023, led to high winds, flooding, and heavy rain, with over $400,000 in damages to Lopez Reservoir infrastructure and multiple road closures.

The San Luis Obispo County FCWCD was also affected by the Severe Winter Storm (DR-4769), which occurred from January 31 to February 9, 2024. This moderate winter storm brought a combination of rain, flooding, and rare tornado activity across the county, including tornado touchdowns in Grover Beach and Los Osos. As such, while the potential for high wind events exists, the likelihood of significant damage or disruption remains low, and tornado risk is considered minimal.

T.3.3.2 Agricultural Pest Infestation, Plant Disease, Marine Invasive Species, and Tree Mortality

The District LPT rated Agricultural Pest Infestation, Plant Disease, Marine Invasive Species, and Tree Mortality as a **low** significance hazard. Pest infestation and plant disease are directly related to other hazards such as droughts and wildfires, with a pest infestation killing trees and reducing the amount of water in ecosystems. Additionally, with the Zone 3 flood control area covering Arroyo Grande, Grover Beach, Avila Beach, Oceano CSD, and Pismo Beach, a pest infestation could reduce irrigation abilities of these areas, with local agriculture facing more intense flooding or drought conditions. This would greatly impact local economies and harm soil and water quality in these areas.

For Zone 9, these areas are already prone to flooding and erosion, and a plant disease that kills something like shrubs and small trees could greatly reduce soil health. According to the Paso Robles Water Conserving Plants Guide, the best performing native and drought-tolerant plants for Zone 9 include plants such as the Manzanita (Arctostaphylos spp.), Ceanothus (California Lilac), and Coffeeberry (Frangula Californica) as well as citrus fruit trees, grapes, and herbs. Implementing these plants could reduce the impacts of drought to these areas. However, a pest such as the Vine Mealybug would kill a crop like grapes or citrus trees, reducing the amount of fruit to harvest as well as the drought mitigation properties these plants provide.

T.3.3.3 Dam Incidents

Dam incidents are a **medium** significance hazard for the FCWCD. There is one critical facility within the inundation zone for the Lopez Dam, as shown in Table T-5. A map of relevant inundation areas and discussion of relevant inundation hazards exists both in the base plan (Section 5.3.8 *Dam Incidents*) and in jurisdiction-specific annexes.

Table T-5 Critical Facility Assets Exposed to Dam Inundation

DAM INUNDATION	LIFELINE	FACILITY TYPE
At Risk - Lopez Dam	Water Systems	Pump Station

Source: San Luis Obispo County, Division of Safety of Dams, Department of Water Resources, CalARP, HIFLD, NBI, NID, FCWCD, WSP Analysis

T.3.3.4 Biological Agents (Naturally Occurring)

The FCWCD LPT ranked biological agents a **low** overall significance hazard. The District's risk and vulnerability to this hazard does not differ substantially from that of the county's overall. Disease outbreaks usually occur in densely populated areas, where person to person proximity provides ample opportunity for transmission of illnesses. Places of work and business, schools and high-population public spaces are of particular concern when the threat of transmissible illness occurs. More information on biological agents can be found in Section 5.3.6 of the base plan.

T.3.3.5 Drought and Water Shortage

The District's risk and vulnerability to this hazard does not differ substantially from that of the County overall. Drought impacts can include water shortfalls for facility operations and critical functions, particularly in reservoir management, groundwater recharge, and flood control infrastructure maintenance. Prolonged drought may also contribute to land subsidence, which can impact groundwater-dependent facilities and infrastructure. Given these operational challenges, drought is considered a **high** significance hazard for the FCWCD.

From July 8, 2021, through September 4, 2024, San Luis Obispo County experienced a prolonged drought that significantly impacted the region's water resources and supply infrastructure. This extended period of drought conditions strained reservoirs, groundwater basins, and imported water supplies, requiring increased conservation efforts. The District had to monitor storage levels and groundwater recharge conditions closely, adjusting water distribution and conservation measures to mitigate shortages. Despite the severity of the drought, no official records of direct property damage to water infrastructure were reported, and the event was not federally declared an emergency. However, state and local agencies, including the District, monitored the situation and implemented water management strategies to ensure continued service delivery.

Drought significantly affects the District's operations. Reduced reservoir storage and groundwater recharge rates increase reliance on State Water Project allocations, which may be curtailed during prolonged droughts. Decreased precipitation leads to soil desiccation, reducing infiltration and increasing runoff risks when rainfall returns, potentially exacerbating

post-drought flash flooding and debris flows. Reservoirs also experience increased sedimentation, lowering their storage capacity and reducing long-term water availability. Drought conditions impact water quality, leading to elevated salinity and contaminant concentrations, a higher prevalence of harmful algal blooms, and warmer water temperatures that degrade aquatic habitats. These challenges create economic and infrastructure burdens, increasing water costs, infrastructure maintenance needs, and the likelihood of water shortages disproportionately affecting rural communities.

The District's critical water infrastructure, including water treatment plants, pumping stations, and reservoirs, is vulnerable to drought-induced supply reductions. Groundwater-dependent communities, particularly in rural areas with limited access to surface water or imported supplies, face increased risks of water shortages. The agricultural sector, which has high water demands, contributes to increased pressure on groundwater basins. Additionally, drought negatively affects ecosystems, particularly riparian areas and fisheries that rely on sustained water flows. As water levels drop, habitat loss and declining water quality place further stress on native species, compounding the effects of prolonged drought conditions. Water supply reliability will continue to be a concern, particularly in groundwater-dependent areas during prolonged droughts.

T.3.3.6 Earthquake and Liquefaction

Water distribution systems by their nature are highly vulnerable to earthquakes, particularly pipeline infrastructure. Table 5-93 in Section 5.3.10.7 of the County Plan shows Hazus damage estimates to water distribution lines and facilities from a major earthquake could total over $648 million. Flood control structures and levees could also be damaged from earthquakes. Damages to facilities and infrastructure from seismic activity or liquefaction could also impede the ability of the District to perform its core functions, with an extended downtime impacting the recovery of the wider community and San Luis Obispo County as a whole.

According to GIS analysis conducted during this planning process, twenty-eight critical water systems are at risk from liquefaction. Table T-6 below describes in more detail the locations and the details of these properties.

Table T-6 Critical Facility Assets Exposed to Liquefaction Susceptibility

LIQUEFACTION SUSCEPTIBILITY	JURISDICTION	FACILITY TYPE	NAME
High	Morro Bay	Tank	-
High	Morro Bay	Tank	-
High	Unincorporated	Pump Station	Intake Structure and Pump Station
High	Unincorporated	Pump Station	Rocky Canyon Pump Station
Moderate	Grover Beach	Tank	-
Moderate	Grover Beach	Tank	-
Moderate	Grover Beach	Tank	-
Moderate	Unincorporated	Booster Station	Salinas Booster Station
Moderate	Unincorporated	Pump Station	-
Moderate	Unincorporated	Pump Station	Polonio Pass
Moderate	Unincorporated	Pump Station	Rocky Canyon Pump Station
Moderate	Unincorporated	Pump Station	Santa Ysabel pump station
Moderate	Unincorporated	Tank	-
Low	Unincorporated	Pump Station	-
Low	Unincorporated	Pump Station	

LIQUEFACTION SUSCEPTIBILITY	JURISDICTION	FACILITY TYPE	NAME
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	Camp Roberts Tank
Low	Unincorporated	Tank	Clearwater Reservoir
Low	Unincorporated	Tank	Cuesta Tank
Low	Unincorporated	Tank	Domestic Tank
Low	Unincorporated	Tank	Fire Flow
Low	Unincorporated	Tank	Rocky Canyon
Low	Unincorporated	Tank	Tank No. 1
Low	Unincorporated	Tank	Tank No. 2
Low	Unincorporated	Water Treatment Facility	Polonio Pass Water Treatment Plant

Source: San Luis Obispo County, CalARP, HIFLD, NBI, NID, FCWCD, WSP Analysis

Overall, earthquake and liquefaction hazards (both of which are discussed in more detail in Section 5.3.10 of the Base Plan) are ranked as **high** significance hazards.

T.3.3.7 Flood

The District recognizes flooding as a hazard of **medium** significance within its jurisdiction. This assessment is based on the area's varied topography, the presence of multiple watersheds, and the increasing frequency of intense storm events. Flood risks are particularly pronounced in low-lying regions, especially those adjacent to creeks and rivers, where stormwater runoff can exceed the capacity of existing drainage infrastructure. Flood-related erosion has done significant damage to District pipeline infrastructure, notable the Nacimiento Water Pipeline. The pipeline is located within the FEMA floodway and 1 percent and 0.2 percent annual chance flood hazard zones at several locations, including the 800-foot-long segment that failed during the January 2023 storms. The segment that failed will not be permanently repaired until late 2026.

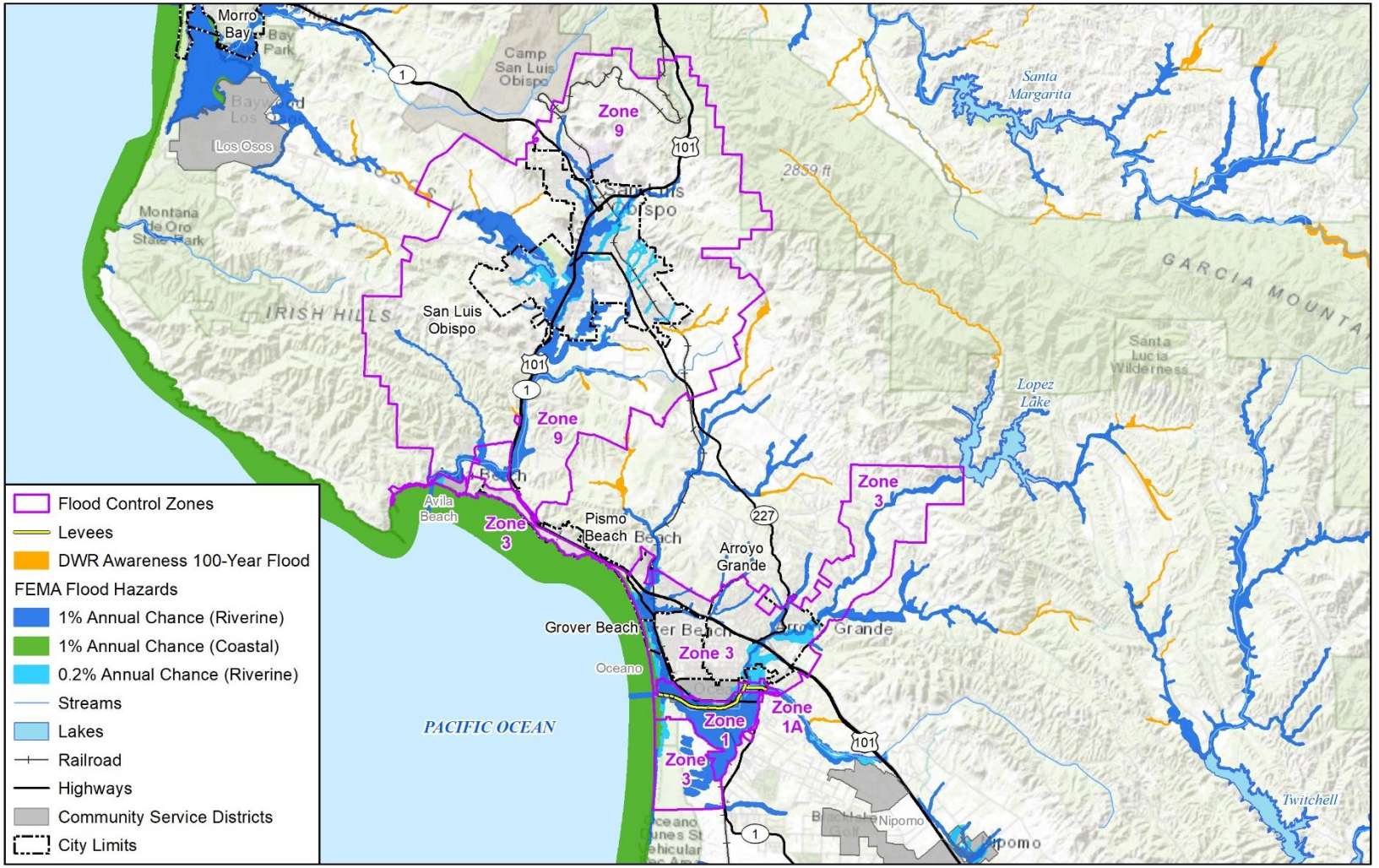
Figure T-3 shows DWR & FEMA flood hazards in the FCWCD. Based on GIS analysis there are three pump stations at risk to the 1% annual chance flood (see Table T-7).

Table T-7 Critical Facility Assets Exposed to FEMA and DWR Awareness 1% Flood Hazards by FEMA Lifelines

LIFELINE	FACILITY TYPE	NAME	FEMA FLOOD
Water Systems	Pump Station	--	1% Annual Chance
Water Systems	Pump Station	Intake Structure and Pump Station	1% Annual Chance
Water Systems	Pump Station	Rocky Canyon Pump Station	1% Annual Chance

Source: San Luis Obispo County, FEMA NFHL Effective Date 6/6/2024, CalARP, HIFLD, NBI, NID, FCWCD, WSP Analysis

Figure T-3 Flood Control and Water Conservation District DWR & FEMA Hazards



Map compiled 5/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
FEMA NFHL Effective 6/6/2024, DWR, USACE Comprehensive Study,
Department of Public Works, Flood Control and Water Conservation District

To address these challenges, the District has implemented a comprehensive approach to flood risk management, focusing on both structural and non-structural measures. Key initiatives include:

- **Flood Control Zones**: The District oversees waterway management projects, such as Zone 1/1A (Arroyo Grande Creek Channel), and Zone 9 (San Luis Obispo Creek Watershed). These zones facilitate targeted flood management strategies tailored to the specific needs of each watershed.
- **Arroyo Grande Creek Channel Improvements**: In response to historical flooding, the District has undertaken projects to enhance the flood-carrying capacity of the Arroyo Grande Creek Channel. Efforts include sediment removal, vegetation management, and the construction of turf reinforcement mats to mitigate flood risks in nearby communities.
- **Collaborative Restoration Projects**: The District collaborates with organizations like The Land Conservancy to restore floodplains and riparian habitats. For instance, the Lower San Luis Obispo Creek Floodplain Preserve project aims to improve floodplain connectivity, enhance groundwater recharge, and support native ecosystems.
- **Community Engagement and Planning**: Recognizing the importance of stakeholder involvement, the District has developed resources like the "Guide to Implementing Flood Control Projects" and “Creek Care Guidance” to assist communities in identifying and addressing local flooding issues.

While the SLO FCWCD does not participate separately in the National Flood Insurance Program (NFIP), it continues to support San Luis Obispo County's participation and compliance with NFIP requirements. The District remains committed to enhancing flood resilience through ongoing assessment, infrastructure improvements, and community collaboration. For additional context and a countywide flood hazard assessment, refer to Section 5.3.8 of the Base Plan.

T.3.3.8 Landslides and Debris Flow

The District gave landslides and debris flow a **medium** overall significance rating. Landslides can damage water distribution systems in two general ways: 1) disruption of pipes and structures caused by differential movement and deformation of the ground, and 2) physical impact of debris moving downslope against pipes and structures located in the travel path. Landslides and debris flows can also contaminate above ground water supplies.

Landslides and debris flows are correlated with drought and flooding, during dry periods and droughts soils can develop fissures, making the soil prone to landslides when it becomes saturated. The storms in the winter of 2023 showed the effects of a drought in the years following a drought. The lack of vegetation and healthy soil to provide infiltration combined with a high volume of water led to flooding and debris flow throughout the county. This contaminated water sources and created flooding in many residential areas. There are twenty-eight critical water system facilities exposed to landslide potential in the District, detailed in Table T-8.

Table T-8 Critical Facility Assets Exposed to Landslide Potential

LANDSLIDE	FACILITY TYPE	NAME
High	Pump Station	-
High	Tank	Fire Flow
High	Tank	-
High	Tank	-
High	Tank	-

LANDSLIDE	FACILITY TYPE	NAME
High	Tank	Clearwater Reservoir
High	Tank	Domestic Tank
High	Tank	Rocky Canyon
High	Tank	Cuesta Tank
High	Tank	Tank No. 1
Moderate	Pump Station	
Moderate	Tank	-
Moderate	Tank	Camp Roberts Tank
High	Water Treatment Facility	Polonio Pass Water Treatment Plant
Low	Booster Station	Salinas Booster Station
Low	Pump Station	Santa Ysabel pump station
Low	Pump Station	Rocky Canyon Pump Station
Low	Pump Station	-
Low	Pump Station	Intake Structure and Pump Station
Low	Pump Station	Rocky Canyon Pump Station
Low	Pump Station	Polonio Pass
Low	Tank	-
Low	Tank	-
Low	Tank	-
Low	Tank	-
Low	Tank	-
Low	Tank	-
Low	Tank	Tank No. 2

Source: San Luis Obispo County, CalARP, HIFLD, NBI, NID, FCWCD, WSP Analysis

T.3.3.9 Subsidence

Subsidence was given a **low** overall significance rating from the District. Although subsidence isn't a major concern for the district and is rated low, it will still be important to monitor groundwater extraction, as this is the main cause of subsidence in California. Subsidence prevention monitoring and mitigation is aided through SGMA. Groundwater Sustainability Agencies (GSAs) monitor groundwater levels to mitigate groundwater overdraw, preventing subsidence. Ongoing projects to monitor the extraction and use of groundwater include the Groundwater Cleanup Project, an initiative to ensure responsible use of groundwater in the San Luis Obispo Valley Groundwater Basin (Basin). This cleanup project will help to monitor extraction, as well as expand local water use through the building of two new groundwater supply wells, with expected full operation in 2026.

T.3.3.10 Tsunami

Tsunami inundation poses a risk to all coastal communities in the County of San Luis Obispo. Offshore faults and related seismic activity could generate a tsunami event off the coast of San Luis Obispo County, even if the fault rupture occurs thousands of miles away. Tsunami is rated as **medium** significance hazard for the District. Refer to Section 5.3.14 in the base plan for more details on the potential impacts of tsunami for the county as a whole.

T.3.3.11 Wildfire

The overall significance rating for San Luis County FCWCD is rated **high** significance. The district is made up of diverse landscapes, including wildland-urban interface (WUI) areas, grasslands, chaparral, and forested regions that are highly susceptible to wildfire ignition and rapid spread, usually in the late summer and fall. Severe drought conditions, combined with prolonged periods of high temperatures and dry offshore winds, have increased vegetation, leading to a buildup of highly combustible fuels across watershed areas. There have been several recent wildfires in San Luis Obispo County, particularly affecting areas managed by the San Luis Obispo FCWCD. These wildfires pose significant risks to the district's operations such as watershed integrity, infrastructure threats, and post-fire hazards (increased risk of debris flow and flooding).

Table T-9 shows critical water systems facilities in the County that are exposed to fire hazard severity zones, categorizing them by fire hazards severity zone level. The table below shows that a total of 28 critical facilities are located within fire hazard severity zones. Of these, six are in areas rated as very high fire hazard severity, and twelve are in areas rated as high fire hazard severity.

Table T-9 Critical Facilities Assets Exposed to Fire Hazard Severity Zones

FHSZ	FACILITY TYPE	NAME
Very High	Pump Station	Intake Structure and Pump Station
Very High	Pump Station	
Very High	Tank	-
Very High	Tank	-
Very High	Tank	Cuesta Tank
Very High	Tank	Tank No. 2
High	Booster Station	Salinas Booster Station
High	Pump Station	-
High	Pump Station	Santa Ysabel pump station
High	Pump Station	-
High	Pump Station	Polonio Pass
High	Tank	-
High	Tank	-
High	Tank	-
High	Tank	Tank No. 1
High	Tank	Camp Roberts Tank
High	Tank	-
High	Water Treatment Facility	Polonio Pass Water Treatment Plant
Moderate	Pump Station	Rocky Canyon Pump Station
Moderate	Pump Station	Rocky Canyon Pump Station
Moderate	Tank	Fire Flow
Moderate	Tank	Clearwater Reservoir
Moderate	Tank	Domestic Tank
Moderate	Tank	Rocky Canyon
Moderate	Tank	-
Non-Wildland	Tank	-
Non-Wildland	Tank	-

FHSZ	FACILITY TYPE	NAME
Non-Wildland	Tank	-

Source: San Luis Obispo County, CAL FIRE - FHSZ Phase 3 March 10, 2025, CalARP, HIFLD, NBI, NID, WSP Analysis

T.3.3.12 Human Caused: Hazardous Materials

Hazardous materials incidents are a persistent but **low** significance hazard for the San Luis County FCWCD. The county experiences an average of 80–90 such incidents annually, with over 2,200 incidents recorded between 1994 and 2024. While most events are minor, approximately one-third have resulted in injuries, fatalities, or evacuations. Transportation-related incidents are more common than those at fixed facilities, with petroleum products, natural gas, wastewater, and ammonia being the most frequently involved substances. These incidents are dispersed throughout the county but tend to cluster in more populated or industrialized areas and near major transportation routes. Significant historical events include a train derailment with hazardous gas in 1986 and a major oil spill in Avila Beach during the 1990s. Despite their frequency, the overall risk to life, property, and the environment remains relatively low due to generally limited severity and strong local emergency response capabilities. However, continued population growth and industrial activity could increase the frequency or impact of future events, particularly if compounded by natural disasters such as earthquakes or floods.

T.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capability assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

To develop this capability assessment, the jurisdictional planning representatives used a matrix of common mitigation activities to inventory policies or programs in place. The team then supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contributed to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional planning representatives and WSP consultant team staff to update information where applicable and note ways in which these capabilities have improved or expanded. In summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The FCWCD capabilities are summarized below.

T.4.1 Regulatory Mitigation Capabilities

Table T-10 identifies existing regulatory capabilities the District has in place to help with future mitigation efforts. Note that many of the regulatory capabilities that can be used for the District are within the County's jurisdiction. Refer to Chapter 6 Capability Assessment of the Base Plan for specific information related to the County's mitigation capabilities.

Table T-10 FCWCD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
San Luis Obispo County Flood Control and Water Conservation District Act	Yes	Various authorities for actions
Zoning ordinance	No	
Subdivision ordinance	No	

REGULATORY TOOL	YES/NO	COMMENTS
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	
Building code	No	
Fire department ISO rating	No	
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	No	
Capital improvements plan	No	
Economic development plan	No	
Local emergency operations plan	Yes	Dam failure response plans, Arroyo Grande Creek Levees
Other special plans	Yes	Integrated Regional Water Management Plan, Waterway Management Program, Regional Water Infrastructure Resiliency Plan
Flood Insurance Study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

T.4.2 Discussion on Existing Building Codes, Land Use and Development Regulations

Existing building codes and land use regulations are primarily governed by the County of San Luis Obispo's Planning and Building Department. The district adheres to the county's General Plan and Land Use Ordinance. The Conservation and Open Space Element includes policies to preserve natural floodplains, restrict development in high-risk areas, and encourage low-impact development techniques to manage stormwater runoff. Additionally, the county enforces the California Building Standards Code (Title 24), including provisions that address water conservation, structural resilience, and flood protection. Development in flood-prone areas must adhere to FEMA and local floodplain requirements.

T.4.3 Administrative/Technical Mitigation Capabilities

Table T-11 identifies the personnel responsible for activities related to mitigation and loss prevention in the FCWCD.

Table T-11 FCWCD Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Planner/engineer with knowledge of land development/land management practices	Yes	Planning/Public Works/Division Managers
Engineer/professional trained in water resources management	Yes	Public Works Engineer IV
Planner/engineer/scientist with an understanding of natural hazards	Yes	Public Works/Engineer IV
Personnel skilled in GIS	Yes	Public Works/GIS Analyst
Full time building official	No	
Floodplain manager	No	

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Emergency manager	No	
Grant writer	Yes	Public Works/Engineer IV/Consultants
Other personnel	Yes	Public Works/Finance/Legal
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Public Works/GIS Analyst
Warning systems/services (hydrologic data collection sites, telemetry)	Yes	Public Works/Engineer IV

T.4.4 Fiscal Mitigation Capabilities

Table T-12 identifies financial tools or resources the District could potentially use to help fund mitigation activities.

Table T-12 FCWCD Fiscal Mitigation Capabilities

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Community Development Block Grants	No
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric services	No
Impact fees for new development	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activities	No
Withhold spending in hazard prone areas	No

The FCWCD has pursued FEMA Hazard Mitigation Assistance funding within the past five years. A Hazard Mitigation Grant Program (HMPG) application, titled County Area Flood Risk Assessment, Resiliency Prioritization, and Mitigation Project Scoping, is currently pending. Additionally, a PDM 2024 application is pending for a project scoping activity that will evaluate the technical, operational, and financial feasibility of increasing flood protection for the community surrounding the Arroyo Grande Creek Channel and Levee System through the implementation of a preferred nature-based solution.

T.4.5 Mitigation Outreach and Partnerships

The District runs a responsible water use outreach program to encourage conservation and efficiency by sending out public notices for water conversation and responsible water use with monthly water and sewer bills. Table T-13 identifies mitigation outreach and partnership opportunities and capabilities that the San Luis Obispo County FCWCD can use to help support mitigation projects.

Table T-13 San Luis Obispo County FCWCD Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO	NOTES
Hazard Awareness/Education Campaigns	No	
Firewise	No	
Storm Ready	Yes	
Severe Weather Awareness Week	No	
School programs	No	
Local News	Yes	

CAPABILITY TYPE	YES/NO	NOTES
Social media	Yes	
Community Newsletters	Yes	Inundation Brochures
Utility Bill Inserts	Yes	Responsible water use outreach conservation and efficiency program, sent via public notices along with monthly water/sewer bills.
Community Events	Yes	Public meetings
Organizations that represent or work with underserved or vulnerable communities	No	
American Red Cross	No	
Salvation Army	No	
Veterans Groups	No	
Environmental/Conservation Groups	Yes	Creeklands Conservation
Homeowner/Neighborhood Associations	No	
Chamber of Commerce	No	
Community Organizations (Lions, Kiwanis, etc.)	No	
Others	No	

The FWCSD noted that these capabilities could be improved by ensuring that one or more designated communications or coordination positions are established with clear ownership and responsibility for leveraging these capabilities effectively.

T.4.6 Other Community Planning Efforts

The following related planning efforts include information relevant to informing this annex and, in some cases, have mitigation-related projects.

Water Resources Advisory Committee (WRAC): The WRAC was established to advise the District Board of Supervisors concerning all policy decisions relating to the water resources of the FCWCD, recommend to the Board specific water resource programs, and to recommend methods of financing water resource programs. The WRAC includes representatives from all five supervisorial districts, cities, community services districts (CSD), resource conservation districts, water purveyors, water resource management agencies, institutions such Cuesta College and California Men's Colony, and at-large members representing agriculture, development, and environmental interests.

State Water Project: In 1963, the District entered into an agreement with the Department of Water Resources (DWR) for 25,000 acre-feet per year (AFY) of State Water Allocation. Between 1994-1998, the Central Coast Water Authority (CCWA) built the Polonio Pass Water Treatment Plant and contracted with the District for water treatment plant and pipeline operation and maintenance. In 1997, the District developed drought buffer agreements with State Water subcontractors in the county to increase reliability of deliveries during dry years. Now the District is looking to put any available State Water to use where needed in the county through water transfer, exchange and/or storage programs. The ability to do this was enabled by the Water Management Tools amendment to the agreement with DWR.

2021 Master Water Report (MWR) and Land Regional Resiliency Planning: The 1972 Master Water and Sewage Plan was initially adopted by the Board in 1972 and was updated in 1986, 1998 and 2012 (renamed as the 2012 Master Water Report) to address water resource issues. Since the 2012 update, there have been major changes in the water resources profile for the County. These major changes include the construction of the Los Osos Reclamation Facility,

establishment of the SGMA, new water users, new water regulations, and the completion of various local and sub-regional water management studies, plans and projects. Consequently, development of a new Countywide Master Water Report was initiated in 2021 to ensure effective management of the County's water resources now and into the future.

This update introduces a new approach focused on creating a living document that can be continuously refined. This adaptive framework will support ongoing planning efforts and help meet the requirements of SB 552 by enhancing drought resilience and coordination across agencies.

Nacimiento Pipeline Project: The District, in partnership with five-area water purveyors, established a Nacimiento Commission for the purpose of utilizing 17,500 Acre-Feet of water supply available at the Nacimiento Reservoir. The project led to the construction of a 42-mile-long pipeline with supporting facilities at a cost of $176 million. Beginning in 2009, the project delivered water to the cities of Atascadero, Paso Robles and San Luis Obispo, the Templeton Community Services District; and through a water exchange agreement to the CSA 10A system in Cayucos.

The Nacimiento Commission, composed of five water purveyors, provides oversight of the project and water deliveries, however, the facility is owned and operated by the FCWCD. Now the District is working with the Nacimiento Commission to develop a water sales program to put any available Nacimiento Water to use where needed in the county through water transfer, exchange and/or storage programs.

Integrated Regional Water Management (IRWM) Plan: Led by the District, this plan is a collaborative effort to manage all aspects of water resources in a region. The IRWM Plan presents a comprehensive water resources management approach to managing the region's water resources focused on strategies to better the sustainability of the current and future needs within San Luis Obispo County. It is built on the existing foundation of the region's longstanding inter-agency cooperation and stakeholder collaboration. When the State allocates funding to the program, the District can apply for grants for local water related projects.

Drainage Studies: In 2001, the County Board of Supervisors approved funding for Drainage and Flood Control Studies for the communities of Cambria, Cayucos, Nipomo, Oceano, San Miguel, and Santa Margarita. These reports summarize the findings, conclusions and recommendations for each of the studies. The District is currently pursuing funding through HMGP for updating the studies via a county-wide flood management planning approach.

T.4.7 Implemented Mitigation Projects

After recent severe storm events in 2023 and 2024 which caused widespread damage through flooding, there has been an increased focus on hazard mitigation projects related to protecting water supply systems, upsizing culverts, improving low water crossings, maintaining existing levees, and sediment removal and vegetation management in creeks and other stormwater channels. Below are some examples of these projects.

Arroyo Grande Cheek Channel: The FCWCD completed a Waterway Management Program in 2021 to enhance the capacity and maintenance of the channel while addressing retaining critical creek habitat. During the 2023 storms, emergency projects to repair a breach site and other damaged portions of the levee were implemented. To mitigate future seepage damages to the levee, the District constructed hydraulic barriers down the centerline of the levees.

Nacimiento Water Project: Portions of the distribution pipeline were damaged due to flooding during the 2023 storms. The proposed hazard mitigation projects will relocate the damaged sections under and out of the floodway and significantly reduce environmental

impacts by reducing the disturbance area and fill needed for the repairs within the special flood hazard areas where the damages occurred.

T.4.8 Opportunities for Enhancement

The San Luis Obispo County FCWCD has identified several areas where its existing mitigation capabilities can be strengthened to better reduce risk from hazards. While the District benefits from access to engineering, GIS, planning, and financial staff through the County, there are notable gaps in regulatory tools, dedicated personnel, and outreach programs that limit its capacity to fully implement hazard mitigation strategies.

Regulatory and Planning Capabilities could be enhanced through the development or adoption of ordinances specific to floodplain management, stormwater management, erosion control, and hazard-specific building standards. Although the District defers to County policies, more formal integration or collaborative frameworks may improve alignment and accountability in high-risk areas.

Administrative and Technical Capabilities would benefit from the formal assignment or coordination of roles such as a floodplain manager, emergency manager, and dedicated communications or coordination staff to oversee mitigation activities and outreach. Expanding internal GIS applications and hazard-specific engineering expertise can further support risk analysis and project implementation.

Fiscal Capabilities could be improved by exploring new funding mechanisms and partnerships to pursue mitigation-related investments. While the District has successfully pursued FEMA BRIC and PDM grants, it currently lacks access to tools like impact fees, service charges, or policies that discourage spending in hazard-prone areas.

Outreach and Education efforts are limited and represent a significant opportunity for growth. The District does not currently operate public education campaigns or partner with organizations serving vulnerable populations. Establishing partnerships with community-based organizations, emergency services, and local nonprofits could strengthen community resilience and improve the District's reach during hazard events.

Finally, vulnerable populations, such as those experiencing homelessness or relying on small, economically stressed water systems, face unique risks from flood and drought hazards. These challenges highlight the need for targeted partnerships, enhanced emergency communication, and planning efforts that prioritize equity and access.

Through these enhancements, the District can better position itself to reduce hazard risks, strengthen project justification for future grant applications, and build long-term resilience throughout its service area.

T.5 Mitigation Strategy

T.5.1 Mitigation Goals and Objectives

The District adopts the following hazard mitigation goals and objectives developed by the HMPC and established in Section 7 of the Base Plan:

- Strengthen risk reduction and resilience by minimizing risks to life, property, infrastructure, and the environment through comprehensive, community-wide strategies.
- Boost outreach and capacity to improve disaster resilience for vulnerable communities.
- Promote regional collaboration to reduce hazard vulnerability and strengthen community resilience.

- Reduce injury, loss of life, and damage to critical facilities and infrastructure from natural hazards.
- Enhance public education and engagement to boost awareness and preparedness for natural, human-health, and human-caused hazards.
- Use the best science and data to guide resilience efforts and prioritize mitigation projects for natural hazards and climate change impacts.

T.5.2 Completed and Deleted 2020 Mitigation Actions

The FCWCD completed the two mitigation actions detailed in Table T-14 from the previous hazard mitigation plan.

Table T-14 FCWCD Completed Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
FCWCD.1	Flood	Review and revise the policies of the San Luis Obispo County Flood Control and Water Conservation District to help reduce the exposure to flood hazards	Flood Control and Water Conservation District	Completed. Confirmed that policies are consistent with how certain laws (e.g. Prop 13, environmental permitting regulations, etc.) define the process through which the Flood Control District can implement projects to reduce exposure to flood hazards.
FCWCD.5	Drought	Develop a Regional Water Infrastructure Resiliency Plan to identify key interconnections to construct and agreements to get water from where it is to where it is needed to mitigate water shortages and drought impacts	Flood Control and Water Conservation District	Completed. This study was completed in 2021.

T.5.3 Mitigation Actions

The San Luis Obispo County FCWCD LPT identified and prioritized the following mitigation actions based on the risk assessment. The Flood Control and Water Conservation District was established to address flood mitigation and water quantity/quality, thus the focus is on drought and flood hazards. As such, hazards other than flood and drought are also considered for mitigation to comply with current FEMA planning requirements. However, because the FCWCD's footprint is countywide and is managed by County Public Works staff as a sub-district of the County, mitigation actions against other hazards in the base plan and other annexes also serve to mitigate those hazards for the FCWCD.

Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. Actions with an asterisk are those that mitigate losses to future development.

Table T-15 San Luis Obispo Flood Control and Water Conservation District Mitigation Action Plan

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
FCWCD.1	Flood	Identify flood prone areas within communities and define mitigation options under Community Drainage Studies. Engage stakeholders in defining, funding, and implementing community drainage facilities.	Flood Control and Water Conservation District, SLO County Public Works	Little to no cost; Staff Time/Dept. Budget	Medium	Short-Term	Annual Implementation. After an extensive process to evaluate alternatives and obtain regulatory permits, the District developed an Arroyo Grande Creek Channel Waterway Management Program (WMP) and implemented an alternative project that was completed in 2020 and designed to carry a discharge of 5,400cfs, which is equivalent to a 10-year event today.
FCWCD.2	Adverse Weather: High Wind; Flood; Landslide; Tsunami	Continue to update and enhance Emergency Response Plan for Arroyo Grande Creek Levee System. Develop safeguards for levee protection. Implement Arroyo Grande Waterway Management Plan to maximize floodway capacity of the facility.	Flood Control and Water Conservation District, SLO County Public Works	Little to no cost; Staff Time/Dept. Budget; FEMA PDM or HMA	High	Short-Term	Annual Implementation. After an extensive process to evaluate alternatives and obtain regulatory permits, the District developed an Arroyo Grande Creek Channel Waterway Management Program (WMP) and implemented a project alternative that was completed in 2020 and designed to carry a discharge of 5,400cfs, which is equivalent to a 10-year event today. A minimum freeboard is provided above the design maximum water surface, which could contain up to 8,000cfs. The ongoing WMP program includes annual vegetation maintenance, improvements to habitat, and sediment removal in designated areas. The Emergency Response Plan is updated periodically with any new information or lessons learned. Awaiting notice of award for a Pre-Disaster Mitigation Grant for completing a flood study for the Arroyo Grande Creek levees.

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
FCWCD.3	Flood; Landslide; Subsidence	Continue to work cooperatively with the state and federal flood related agencies for funding improvements through grant and agency programs	Flood Control and Water Conservation District, SLO County Public Works	Little to no cost; FEMA HMA/Staff Time/Dept. Budget	High	Ongoing	Annual Implementation. FCWCD coordinated with FEMA and Cal OES to pursue Hazard Mitigation Grant Program (HMGP) funds. In 2024, the District was awarded $950,610 by FEMA through HMGP to fund the Nacimiento Water Project (NWP) Flood Hazard Mitigation Study and Design (Project). This study will determine which sections of the NWP pipeline have the highest risk of failure due to flooding danger. The pipeline is located within the FEMA floodway and 1 percent and 0.2 percent annual chance flood hazard zones at several locations, including the 800-foot-long segment that failed during the January 2023 storms. The segment that failed will not be permanently repaired until late 2026. The Project will develop a prioritized list of alternative projects to mitigate the flood risk and complete 60% design plans for a preferred mitigation project. The grant will cover the management, planning and 60% design costs for implementing a mitigation project that will reduce risks of flood damage to our critical water infrastructure. The Project will be completed up to 60% design by August 2027.

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
FCWCD.4	Dam Incidents	Perform destructive testing of the Lopez Dam to quantify previous investigation data and direct what repairs are needed. Conduct geotechnical investigation on Lopez Terminal Dam.	Flood Control and Water Conservation District, Division of Safety of Dams	High; FEMA-HHPD	High	TBD (pending DSOD review and approval of previous non-destructive testing assessment.)	In Progress. Lopez Spillway investigation is ongoing. In 2024 the spillway was analyzed utilizing ground penetrating radar as well as concrete cores were taken. GEI, the consultant, is preparing a draft technical report on the overall condition of the spillway. The Lopez Terminal Dam geotechnical investigation was completed in 2024 and is the report is being developed by GEI for submittal to DSOD.
FCWCD.5	Dam Incidents	Dam Risk Assessment and Mitigation. Assess vulnerabilities and risks to dams and identify mitigation measures. Implement mitigation measures to increase anticipated useful life of dam infrastructure and protect dams.	Flood Control and Water Conservation District, SLO County Public Works, Division of Safety of Dams, USACE, Regional Partners	Very High; FEMA Hazard Mitigation Assistance Grant, Local Funds, In-Kind, Private Non-Profit, DWR Dam Safety and Climate Resilience Local Assistance Program (DSCR), FEMA HHPD	Medium	Long-Term	New in 205
FCWCD.6	Earthquake and Liquefaction; Landslide	Water Infrastructure Earthquake Hazard Assessment and Mitigation. Assess vulnerabilities and risks to critical infrastructure due to earthquake and identify mitigation measures. Implement mitigation measures to protect water infrastructure from earthquake damages.	Flood Control and Water Conservation District, SLO County Public Works, Division of Safety of Dams, USACE, Regional Partners	Very High; FEMA Hazard Mitigation Assistance Grant, Local Funds, In-Kind, Private Non-Profit, HMGP	Medium	Long-Term	New in 2025

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
FCWCD.7	Biological Agents; Drought and Water Shortage, Hazmat	Research emerging constituents of concerns. Impacts to water quality, treatment technologies, and recommend mitigation actions and implement high priority actions to maintain and protect health and comply with drinking water standards.	Flood Control and Water Conservation District, SLO County Public Works	Very High; FEMA Hazard Mitigation Assistance Grant, Local Funds, In-Kind, California State Water Resources Control Board (SWRCB) Grants	Medium	Long-Term	New in 2025
FCWCD.8	Drought and Water Shortage; Subsidence; Wildfire	New Water Supply Source. The District relies on limited water supplies that are subject to replenishment by rainfall (groundwater and reservoirs). The yield of these supplies is projected to decrease (some groundwater basins are already in decline) due to increase competing demands (domestic, agricultural, environmental), more extensive drought periods and higher heat waves. New supplies are needed to replace lost yield and meet future needs, and could include but not be limited to desalinated water, water transfers, recycled water (including direct and indirect potable reuse) and conserved water. Assess alternative supply source risk and resilience to wildfire.	Flood Control and Water Conservation District, SLO County Public Works, Local Water Agencies, agricultural, rural, and environmental communities with water needs	Very High; FEMA Hazard Mitigation Assistance Grant, Local Funds, DWR Water Recycling Funding Program (WRFP), DWR Water Desalination Grant Program	Medium	Long-Term	New in 2025

T.6 Implementation and Maintenance

Moving forward, the San Luis Obispo Flood Control and Water Conservation District will use the mitigation action table in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Chapter 8 in the Base Plan.

T.6.1 Incorporation into Existing Planning Mechanisms

The information contained within this plan, including results from the Vulnerability Assessment, and the Mitigation Strategy will be used by the District to help inform updates of FCWCD plans, and in the development of additional plans, programs and policies. Understanding the hazards that pose a risk and the specific vulnerabilities of the District will help in future capital improvement planning for the FCWCD. The District may utilize the hazard information when reviewing a site plan or other type of development applications with the boundaries of the FCWCD area. The FCWCD, along with district and county staff, is utilizing the 2025 update of the MJHMP to fully comply with SB 552 Drought Resilience Planning requirements. As noted in Chapter 8.0 Plan Implementation, the HMPC representatives from the FCWCD will report on efforts to integrate the hazard mitigation plan into local plans, programs and policies and will report on these efforts at the annual HMPC plan review meeting.

T.6.2 Monitoring, Evaluation and Updating the Plan

The FCWCD will follow the procedures to Monitor, review, and update this plan in accordance with San Luis Obispo County as outlined in Chapter 8 of the Base Plan. The District will continue to involve the public in mitigation, as described in Section 8.3 of the base plan. The Deputy Directors of County Public Works will be responsible for representing the District in the County HMPC, and for coordination with County staff and departments during plan updates. The San Luis Obispo Flood Control and Water Conservation District realizes it is important to review the plan regularly and update it every five years in accordance with the Disaster Mitigation Act Requirements as well as other State of California requirements.

Annex U South San Luis Obispo County Sanitation District

U.1 District Profile

The South San Luis Obispo County Sanitation District provides wastewater collection, treatment and disposal services to the three-member agencies of Arroyo Grande, Grover Beach, and the Oceano Community Services District (CSD). The District is governed by a District Board composed of three members appointed by each of the member agencies. This Board makes policy and operational decisions based on recommendations of the District Administrator, engineers, and staff, and establishes policies, goals, and objectives. It additionally approves budgets, expenditures, and related district functions.

The district's commitment to public health is focused on sound environmental design, educational opportunities, effectively working with homeowners and businesses, and appropriate and responsible construction mechanisms. The District engages in a fats, oils, and grease safe release program as well as a pretreatment of chemicals and substances program to prevent the introduction of pollutants into the water and land, while protecting personnel from hazardous materials exposure.

U.1.1 Mitigation Planning History and 2025 Process

This Annex was updated during the development of the 2025 San Luis Obispo County Hazard Mitigation Plan Update. The District was previously part of the Multi-Jurisdictional Local Hazard Mitigation Plan which was approved by FEMA in April 2020. The previous mitigation plan was used to inform Coastal Hazards Monitoring but was not formally incorporated into other planning mechanisms.

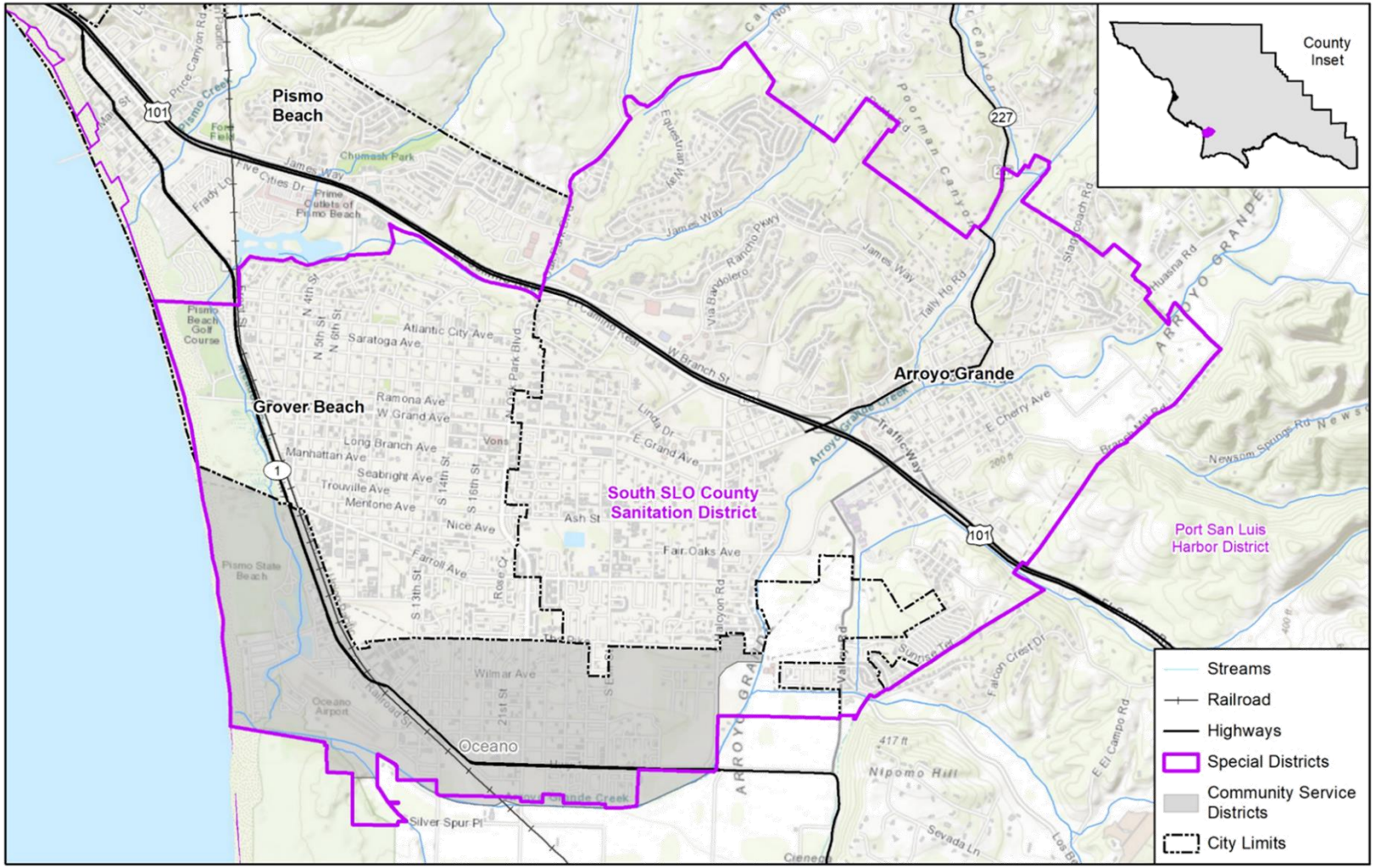
The Plant Superintendent of the South San Luis Obispo County Sanitation District was the representative on the county Hazard Mitigation Planning Committee and took the lead for developing the plan and this annex in coordination with the South SLO District Local Planning Team (Planning Team). The District Planning Team will be responsible for implementation and maintenance of the plan.

Table U-1 South San Luis Obispo County Sanitation District Hazard Mitigation Plan Planning Team

STAKEHOLDER GROUP	DEPARTMENT OR STAKEHOLDER	TITLE
Local Planning Team	South SLO County Sanitation District	Plant Superintendent
	South SLO County Sanitation District	District Administrator
Agencies involved in hazard mitigation activities	San Luis Obispo Public Works	Public Works Engineer
Agencies that have the authority to regulate development	Arroyo Grande	Community Development Director
	Grover Beach	Public Works Director
Neighboring communities	Arroyo Grande	Community Development Director
	Grover Beach Public Works	Director
Representatives of business, academia, and other private orgs	Oceano Community Services District Management	Management
	California Coastal Commission	
Representatives supporting underserved communities	5Cities Homeless Coalition	

More details on the planning process followed and how the jurisdictions, service districts and stakeholders participated can be found in Section 3 of the Base Plan, along with how the public was involved during the 2025 update. Figure U-1 below is a map showing the South SLO County Sanitation District including its sphere of influence and nearby areas.

Figure U-1 South San Luis Obispo County Sanitation District



U.1.2 Geography and Climate

The geography and climate of the South San Luis Obispo County region play an important role in shaping the operations and challenges faced by the South SLO County Sanitation District. The District is located along California's Central Coast, a region characterized by a Mediterranean climate with mild, wet winters and warm, dry summers. This seasonal variation affects the volume and characteristics of wastewater entering the treatment plant, particularly during the rainy season when infiltration and inflow from stormwater can increase flows within the sewer system. Although SSLOCSD does not manage the collection systems directly, higher flows from member agencies during wet weather events can impact the treatment plant's capacity and operations.

The region's coastal geography also influences the District's services. The proximity to the ocean requires careful management of treated effluent discharges to protect sensitive marine environments. Therefore, the District must adhere to strict regulatory standards to ensure that wastewater is adequately treated before discharging into the ocean. Additionally, sea level rise and coastal erosion present long-term risks to infrastructure, particularly facilities located near low-lying coastal areas. The District must plan for potential impacts such as flooding, saltwater intrusion, and increased regulatory pressure. Additionally, the risk of drought places added emphasis on water conservation and may impact wastewater characteristics due to lower household water usage which can lead to more concentrated wastewater and potential operational challenges in the treatment process.

U.1.3 History

In 1958 the Grover City County Water Board commissioned several engineering studies aimed at investigating the rising nitrate levels observed in the local groundwater sources. At that time both Grover City and the Oceano community were entirely unsewered and depended on individual septic tanks. While Arroyo Grande had sewer systems at that time, said systems led to a wastewater treatment facility located at the sewer farm, and the partially treated wastewater was disposed onto nearby lands. Because of the studies carried out upon that engineering commissioning, it was determined there was a need to better address the septic tank and sewer farm impacts on nearby lands and groundwater resources. To solve these issues, the South San Luis Obispo County Sanitation District was founded on September 3, 1963. Upon this new sanitation district development, nine miles of trunk sewer lines were built, as well as a new wastewater treatment plant and an ocean outfall line to get rid of the treated wastewater. To date, further improvements have taken place as well expansions in the wastewater systems. Key years when improvements, additions, or other constructions were incorporated into the District's infrastructure include 1978, 1979, 1986, 1990, and 2005.

U.1.4 Economy

Currently the District's staff is composed of the District Administrator, a bookkeeper/secretary, and six operational staff.

Between 2020 and 2025, the South SLO County Sanitation District demonstrated a strong commitment to fiscal responsibility, operational efficiency, and strategic infrastructure investment. Annual budgets have been balanced each year, with total appropriations growing from approximately $8.8 million in FY 2020-21 to $17.1 million in FY 2024-25. This growth reflects the District's proactive efforts to meet current operational needs while preparing for future demands. Core revenue streams, including service charges, connection fees, interest income, and the strategic use of reserves, have remained stable, and FY 2024-25 introduced a $9.96 million redundancy funding allocation to enhance system reliability.

Throughout this period, the District carefully managed operating expenditures, including personnel, maintenance, and utilities, while steadily increasing capital outlay from $2.9 million in FY 2020-21 to over $11.5 million in FY 2024-25. These capital investments supported long-term improvements such as trunk sewer maintenance, chemical tank replacement, and installation of cogeneration systems. The District maintained a consistent focus on infrastructure renewal and compliance with regulatory standards, guided by established reserve and investment policies that ensure prudent financial management.

Demographic indicators can help the District understand the communities it serves and how best to manage wastewater treatment needs now and into the future. Key demographic factors include population size and growth, which affect long-term infrastructure planning; age distribution, which influences usage patterns across different life stages; and housing characteristics, which provide insight into residential wastewater output. Table U-4 presents selected demographic information relevant to District's service area

Table U-2 South San Luis Obispo County Sanitation District Economic Indicators

INDICATOR	ARROYO GRANDE	GROVER BEACH	OCEANO CDP
Median Household Income	$103,258	$82,534	$69,448
Per Capita Income	$50,203	$41,607	$38,764
Poverty Rate	4.6%	12.7%	17.1%
Unemployment Rate	2.3%	3.4%	3.2%

Source: U.S. Census Bureau American Community Survey 2018-2023, 5-Year Estimates www.census.gov

U.1.5 Population

The South SLO County Sanitation District does not serve customers directly. Instead, it provides wastewater treatment services to its member agencies. These member agencies manage their own sewer collection systems and collect fees from their customers, which are then used to pay the District for treatment services. However, understanding the economic conditions of the communities it serves helps the District evaluate rate structures, anticipate service demand, and ensure equitable access. Metrics such as median household income and per capita income provide insight into residents' financial capacity, while the poverty rate highlights the proportion of the population that may require affordability programs or assistance. Additionally, the unemployment rate offers a snapshot of economic stability, which can influence both residential and commercial wastewater usage. Table U-3 summarizes key economic indicators relevant to SSLOCSD's service area.

Table U-3 South San Luis Obispo County Sanitation District Demographic and Housing Characteristics

CHARACTERISTIC	ARROYO GRANDE	GROVER BEACH	OCEANO CDP
Population	18,441	12,701	7,098
Median age	45.2	40.5	46.4
Percent over 65 years old	25.7%	17.8%	27.2%
Percent under 5 years old	4.8%	4.5%	5.7%
Average household size	2.43	2.54	3.3
Total housing units	8,198	5,757	3,177
Housing vacancy rate	6.5%	13.6%	12.3%
Housing type: 1-unit	73.9%	74.7%	65.9%

CHARACTERISTIC	ARROYO GRANDE	GROVER BEACH	OCEANO CDP
Housing type: 2-units	1.1%	2.8%	3.9%
Housing type: 3 or 4 units	3.2%	14.2%	5.8%
Housing type: 5 to 9 units	3.3%	3.9%	3.7%
Housing type: 10 to 19 units	4.7%	0.2%	0.5%
Housing type: 20 or more units	7.1%	0.4%	0.0%
Housing type: Mobile home	6.6%	3.6%	19.7%
Housing type: Boat, RV, van, etc.	0.0%	0.2%	0.5%
Housing characteristic: lacking complete plumbing facilities	0.0%	0.5%	0.4%
Housing characteristic: lacking complete kitchen facilities	0.3%	0.8%	0.4%

Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/

U.1.6 Development Trends

Since the Sanitation District encompasses and provides services for Arroyo Grande, Grover Beach, and the Oceano Community Services District it is expected that development and changes in the community will follow those of the two cities and CSD. For more information on these member communities refer to the Base Plan as well as Annex A (Arroyo Grande), Annex C (Grover Beach), and Annex N (Oceano). There has not been any development since 2019 that has increased or decreased vulnerability of District facilities to hazards.

U.2 Hazard Identification and Summary

The Sanitation District Planning Team identified the key hazards that affect the District, and summarized their frequency of occurrence, spatial extent, potential magnitude, and overall significance specific to the District in Table U-4.

Table U-4 South SLO County Sanitation District Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Lightening, Freeze, Hail, Dense Fog	Significant	Likely	Limited	Low
Adverse Weather: High Wind and Tornado	Significant	Likely	Negligible	Low
Adverse Weather: Extreme Heat	Extensive	Occasional	Negligible	Low
Agricultural Pest Infestation and Disease	Limited	Highly Likely	Negligible	Medium
Coastal Flood/Coastal Erosion/Sea Level Rise	Limited	Likely	Critical	Medium
Dam Incidents and Failure	Extensive	Unlikely	Catastrophic	Medium
Drought and Water Shortage	Significant	Likely	Limited	Low
Earthquake and Liquefaction	Significant	Occasional	Critical	High
Flood	Significant	Highly Likely	Limited	Medium
Tsunami and Seiche	Limited	Occasional	Limited	Low

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/ SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Wildfire	Significant	Occasional	Limited	Low
Hazardous Materials	Limited	Occasional	Limited	Low

Geographic Area
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area
Probability of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.

Magnitude/Severity (Extent)
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid
Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

U.3 Vulnerability Assessment

This section considers the District's assets at risk, including an inventory of improved properties and critical facilities and Community Lifelines, and historic, economic, cultural, and environmental assets. Please refer to Section 5.2.2 of the base plan for a detailed description of the methodology used.

The key information to support the HIRA for this Annex was collected through a Data Collection Guide, which was distributed to each participating municipality, community services district, or special district to complete during the planning process. Information collected was analyzed and summarized in order to identify and rank all the hazards that could impact anywhere within the County, as well as to rank the hazards and identify the related vulnerabilities unique to each jurisdiction/district. In addition, the District's planning team was asked to share information on past hazard events that have affected the district.

Each participating jurisdiction or district was in support of the main hazard summary identified in the Base Plan. However, the hazard summary rankings for each jurisdictional annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction (see Table U-4). Identifying these differences helps the reader to differentiate the district's risk and vulnerabilities from that of the overall County.

Note: The hazard significance reflects overall ranking for each hazard and is based on the South SLO County Sanitation District's planning team input from the Data Collection Guide and the risk assessment developed during the planning process (see Chapter 5 of the Base Plan), which included more detailed quantitative and qualitative analyses with best available data for all hazards in the County.

The hazard summaries in Table U-4 reflect the hazards that could potentially affect the District in major ways. Based on this analysis, the priority hazard (High Significance) for mitigation is earthquake/liquefaction. The second priority hazards (Medium Significance) are agricultural pest infestation/disease, dam incidents/failure, drought and water shortage, flood, coastal flood, erosion, and sea level rise. The discussion of vulnerability for each of the assessed hazards is in contained in the following sections.

U.3.1 Other Hazards

The following hazards identified in the base plan HIRA are not identified within this jurisdictional annex due to low or no risk or insignificant anticipated impacts and are not considered further for vulnerability or mitigation actions:

- Biological agents
- Landslides and Debris Flow
- Subsidence

U.3.2 Assets at Risk

This section considers the South SLO County Sanitation District's assets at risk, including values at risk, critical facilities and infrastructure, historic assets, economic assets, and growth and development trends. Please refer to Section 5.2.2 of the base plan for a detailed description of the methodology used.

U.3.2.1 Critical Facilities and Infrastructure

A critical facility is one that is essential to providing utility or direction either during the response to an emergency or during the recovery operation. Most of the facilities considered critical in the context of the Hazard Mitigation Plan are owned and operated by the Cities of Arroyo Grande and Grover Beach, and the Oceano Community Services District. As such, those facilities are listed within each jurisdiction's annex. Refer to Section 5.2 of the Base Plan for more information on the Assets used throughout each annex and the county-wide analyses. The list below includes only the infrastructure and facilities owned and maintained by the District itself.

Wastewater Treatment Plant (WWTP) Core Systems

- Headworks Pump Station
- Primary Clarifiers
- Fixed Film Reactor
- Aeration Basins
- Chemical Storage Tanks (Chlorine, Sodium Bisulfite, Ferric Chloride)
- Chemical Injection Pumps
- Secondary Clarifiers
- Chlorine Contact Tank
- Motor Control Centers
- Digesters
- Emergency Generators

Site Structures and Grounds

- Barbed Wire Perimeter Fencing
- Light Poles
- Grit King
- Heating & Mixing Building
- Splitter Box
- Administrative Building and Laboratory

Sewer and Collection Infrastructure

- Approximately nine miles of trunk sewer mains (not the full collection system, which is owned by member agencies)
- Trunk Sewer Maintenance Equipment and inspection systems (e.g., CCTV and flushing systems)

Redundancy and Flood Protection Improvements

- Flood Gates (new and improved for 500-year flood protection)
- Stem Walls (planned)
- Pump Systems and Sump Pumps
- Above-ground Diesel Tank
- Above-ground Emergency Generators

Operational and Emergency Equipment

- Trash Pumps
- Emergency Supplies Storage (in centrifuge building)
- Fuel StorageVehicles and Maintenance Shop Equipment
- 12 MGD Emergency Bypass Pump

U.3.2.2 Natural Resources

Natural assets may include wetlands, threatened and endangered species, or other environmentally sensitive areas. Natural and environmental resources are important to include in benefit-cost analyses for future projects and may be used to leverage additional funding for projects that also contribute to community goals for protecting sensitive natural resources. Awareness of natural assets can lead to opportunities for meeting multiple objectives. For instance, protecting wetlands areas protects sensitive habitat as well as attenuates and stores floodwaters. Because the Sanitation District encompasses the Cities of Arroyo Grande and Grover Beach as well as the Oceano CSD, referring to these respective annexes as well as the documents within the Base Plan is recommended to get more details on natural resources of interest within this special district.

U.3.2.3 Economic Assets

Economic assets within this special district are represented in the critical facilities and infrastructure noted previously.

U.3.3 Estimating Potential Losses

This section details vulnerability to specific hazards of medium or high significance, where quantifiable, noted by the Planning Team. Impacts of past events and vulnerability to specific hazards are further discussed below, though Section 5 of the Base Plan should be referenced for more details on the County's HIRA findings and hazard profiles.

U.3.3.1 Adverse Weather: Thunderstorm/Heavy Rain/Lightning/Dense Fog/Freeze

South San Luis Obispo Sanitation District's risk and vulnerability does not differ significantly from that of San Luis Obispo County. The overall significance rating of the planning area is **low**. The district is subject to many of the same regional weather patterns during storm seasons and transitional weather patterns.

Similar to the county, the district is susceptible to the impacts of heavy rainfall. The planning area experiences about 16 inches of precipitation annually, according to Western Regional Climate Center. While thunderstorms and lightning are relatively rare, they can still pose safety risks to residents and strain electrical infrastructure when they occur. Dense fog is a common concern along the coast, particularly in the cooler months, often reducing visibility along roadways. The tables below show key climate variables such as extreme temperatures, precipitation totals, and the frequency of specific weather events. Note that Pismo Beach weather station is the nearest official reporting site to South San Luis Obispo Sanitation District.

Table U-5 Pismo Beach Climate Summary Table – Weather (Period of Record: 07/01/1949 - 08/30/2017)

SUMMARY PERIOD	MONTHLY MEAN MAXIMUM TEMP.	MONTHLY MEAN MINIMUM TEMP.	DAILY EXTREME HIGH TEMP	DAILY EXTREME HIGH DATE	DAILY EXTREME LOW TEMP	DAILY EXTREME LOW DATE	MAXIMUM TEMP. ≥ 90˚F MEAN # DAYS	MINIMUM TEMP. ≤ 32˚F MEAN # DAYS
Winter	63.9 ˚F	43.5 ˚F	92 ˚F	12/2/1958	21 ˚F	12/3/1986	0	2.9
Spring	66.9 ˚F	46.3 ˚F	101 ˚F	4/7/1989	23 ˚F	3/23/1963	0.6	0.4
Summer	69.5 ˚F	52.4 ˚F	102 ˚F	8/22/1972	37 ˚F	6/29/1987	1.1	0
Fall	70.3 ˚F	50.1 ˚F	103 ˚F	9/3/1982	27 ˚F	10/27/1986	1.4	0.1
Annual	67.5 ˚F	47.8 ˚F	103 ˚F	9/3/1982	21 ˚F	12/3/1986	3.4	4.3

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

Table U-6 Pismo Beach Climate Summary Table – Precipitation (Period of Record: 07/01/1949 - 08/30/2017)

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECIP. 1 DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. ≥ 1.00 IN. MEAN # DAYS
Winter	9.34 in.	26.85 in.	1969	2.03 in.	1964	5.16 in.	1/19/1969	2.4
Spring	4.1 in.	17.23 in.	1991	0.03 in.	1997	2.62 in.	3/20/2011	1
Summer	0.15 in.	1.5 in.	2015	0 in.	1953	1.15 in.	7/19/2015	0
Fall	2.76 in.	8.19 in.	1972	0.09 in.	2014	2.25 in.	11/14/1953	0.6
Annual	15.92 in.	33.58 in.	1983	3.23 in.	2013	5.16 in.	1/19/1969	4.3

Source: Western Regional Climate Center (WRCC) https://wrcc.dri.edu/
* Winter is defined as December, January, and February
** Summer is defined as June, July, and August

U.3.3.2 Adverse Weather: High Wind and Tornado

South San Luis Obispo Sanitation District's risk and vulnerability to this hazard does not differ significantly from that of the County overall significance of **low**. While these hazards are not common in the region they can occasionally occur during strong storm systems, particularly in the winter months. The District may experience gusty winds capable of causing minor damage and tornado activity is extremely rare across the county. As such, while the potential for high wind events exists, the likelihood of significant damage or disruption remains low and tornado risk is considered minimal.

U.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for the South San Luis Obispo Sanitation District. The monthly mean maximum temperature for Pismo Beach, the closest NOAA weather station with recent data, is 69.5˚F; however, temperatures up to 103˚F have been recorded (see Table U-5). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future. Projections by the Scripps Institute suggest that the Central Coast region could see as many as five times as many days of extreme heat by the end of the century (Thorton 2024).

High temperatures place stress on sewer lines and equipment, potentially causing pipes to expand and contract, which can lead to cracks or joint failures, especially in older systems. Equipment in treatment plants and lift stations is also vulnerable to overheating if cooling systems are not adequate, and electronic components are also susceptible to failing. Additionally, warmer temperatures increase biological activity in sewer lines, accelerating the production of hydrogen sulfide gas which can corrode metal infrastructure.

Extreme heat can disrupt the efficiency of wastewater treatment processes. Heat also increases the need for energy to cool facilities and maintain equipment performance, which can strain the district's power systems, particularly during peak demand periods. Additionally, residential water use may increase during heatwaves, raising inflow to the sewer system and potentially overwhelming capacity. Public health and safety are also at greater risk during extreme heat events. Higher temperatures can lead to more frequent blockages and sewer overflows, especially when combined with power outages that may disable pump stations. Field crews and plant operators face increased risk of heat-related illnesses while working outdoors or in enclosed spaces with poor ventilation.

U.3.3.4 Agricultural Pest Infestation and Disease

Due to Arroyo Grande, Grover Beach, and Oceano CSD containing relatively large amounts of agricultural fields, this hazard was ranked as a **medium** overall significance rating in the district. Pests and related diseases/pathogens have the potential to affect the local economy and agricultural landscapes by hurting or destroying crops and livestock. The number of invasive pests and pathogens newly detected in California and the rest of the United States has increased at alarming rates in recent years, and that trend is projected to continue into the future.

U.3.3.5 Coastal Storm/Coastal Erosion/Sea Level Rise

The District facility is located on the low-lying coastal plain of Oceano, approximately 1,500 feet from the mean higher high water mark of the Pacific Ocean. It is bounded by Arroyo Grande Creek to the south and lower Meadow Creek Lagoon to the west. This positioning places the facility within the Coastal Zone and at elevated risk from coastal storms, sea level rise, and bluff erosion. Coastal flood risks in this region are primarily influenced by high tide and large swell events that affect the dynamic lagoon-berm system of Arroyo Grande Creek and Lagoon. The creek and lagoon system, historically sinuous and backed by foredunes, now exhibits altered flow patterns, especially following the 2023 breach of the foredune barrier. This breach has allowed the creek to discharge more directly to the ocean, bypassing the lagoon and enhancing drainage conveyance during future storm events.

The District operates under a Coastal Development Permit (CDP No. 3-16-0233) issued in 2019, which requires annual monitoring of coastal hazards, including sea level rise, and outlines thresholds that trigger response actions. The Coastal Hazards Monitoring Program includes ongoing assessments of water levels, beach berm elevation, foredune morphology, streamflow, and oceanic conditions. Notably, water levels in Arroyo Grande Lagoon have periodically exceeded the flood hazard trigger of 10.4 feet NAVD 88 in recent years. However, no operational impacts at the District Facility have occurred to date, largely due to effective drainage following breaches in the foredunes.

During the 2023–2024 monitoring year, oceanic conditions, rather than rainfall, were the dominant driver of elevated water levels and morphological changes in the lagoon and adjacent beach berm. Large swell and king tide events caused multiple lagoon breaches and temporary flow reversals in Arroyo Grande Creek. Despite intense coastal energy, the altered creek mouth and diminished lagoon footprint reduced the likelihood of sustained upstream flooding. These changes may indicate an emerging trend toward more frequent breaches and higher conveyance capacity, which could mitigate some sea level rise-related risks in the short term.

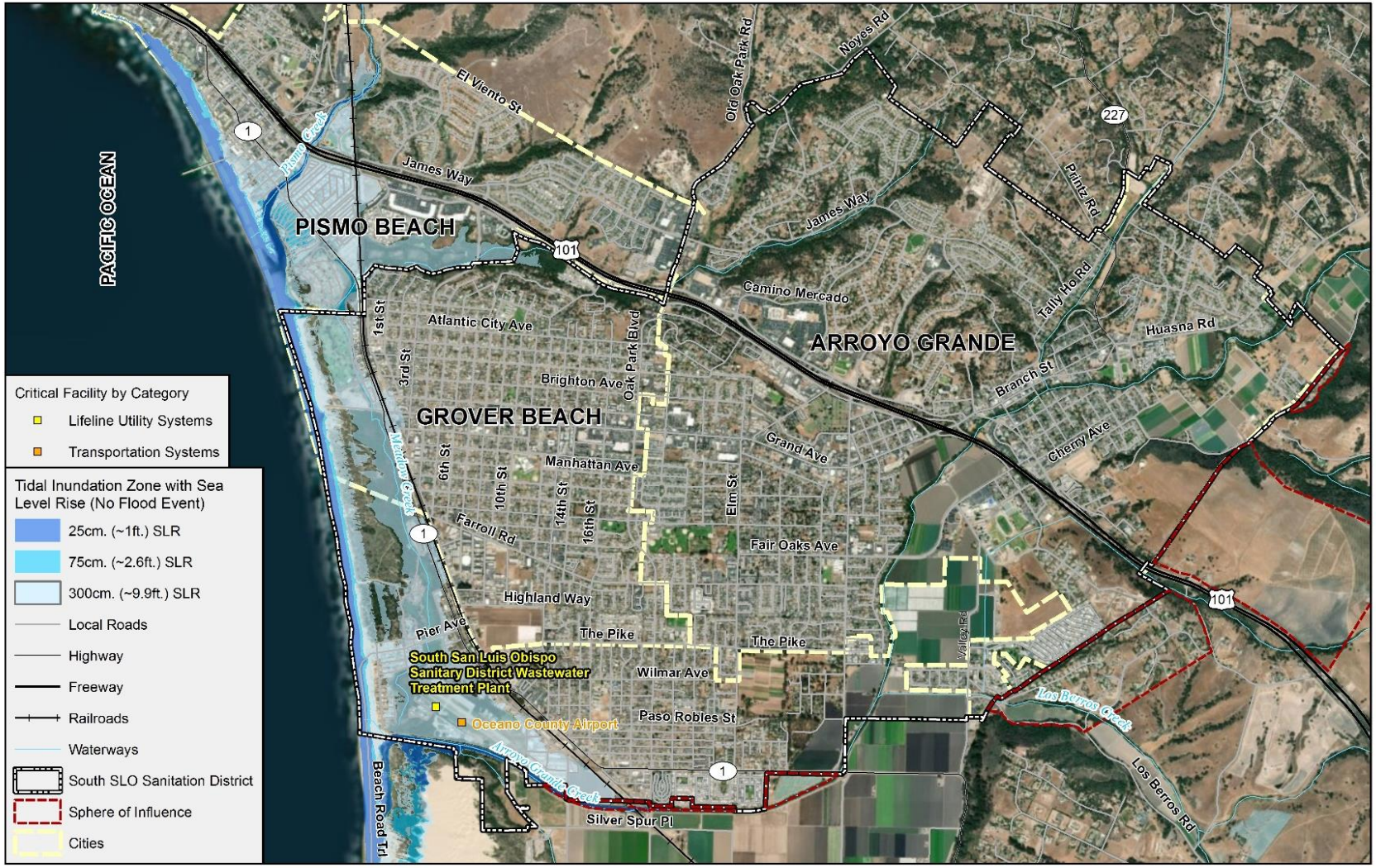
The District's Redundancy and Improvements Project, initiated in 2021 and nearing completion, includes minor floodproofing and is designed to withstand up to 500-year flood elevations (14.75 to 15.25 feet NAVD 88). These upgrades enable key process units to be serviced without violating effluent permit requirements, providing critical operational resilience in the face of future coastal hazards. In addition to physical upgrades, aerial drone surveys are now conducted three times annually to supplement pedestrian beach berm monitoring, offering a more complete picture of changing topography and foredune stability.

While no direct flood damage has been recorded at the District Facility during extreme coastal events in the past five years, indirect impacts, such as emergency rescues during high surf events and infrastructure stress, highlight the growing exposure of coastal infrastructure to sea level rise and extreme weather. The combination of regional rainfall, ocean swell, and shifting outlet morphology remains a critical focus of the District's hazard mitigation strategy. Ongoing coordination with San Luis Obispo County, California State Parks, and Oceano CSD remains essential to monitor, model, and respond to coastal hazards that threaten both the District and neighboring lands.

Overall, the LPT has rated coastal storm, erosion, and sea level rise hazards as holding **medium** significance for the District. While current conditions do not pose an imminent threat to operations, evolving climate conditions and continued shoreline erosion warrant sustained attention and adaptive management over the planning horizon. The District will continue to implement its Monitoring Plan and evaluate improvements based on collected data, stakeholder input, and new modeling forecasts to ensure preparedness for future sea level rise and extreme coastal events. Further information on this hazard at the county level can be found in Section 5.3.7 of the base plan.

Figure U-2 and Figure U-3, below, show sea level rise scenario analysis extents with tidal inundation only and tidal inundation with the 1% annual chance floodplain.

Figure U-2 South SLO Sanitation District Sea Level Rise Scenario Analysis: Tidal Inundation Only



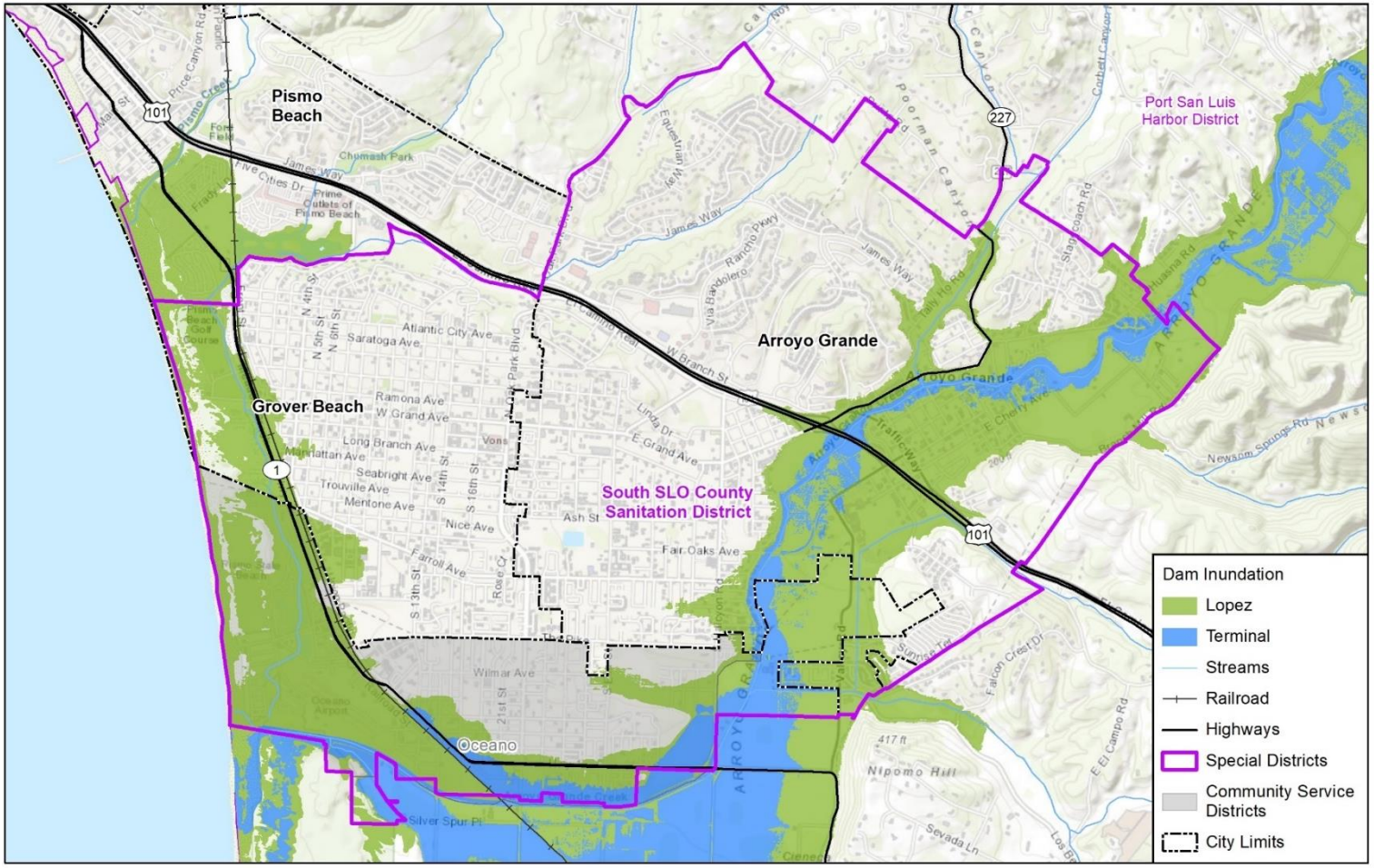
Map compiled 9/2019;
intended for planning purposes only.
Data Source: USGS CoSMoS v3.1.
San Luis Obispo County, US Census TIGER Database, CA Open Data Portal, LAFCO.
Note: SLR = Sea Level Rise

U.3.3.6 Dam Incidents

The Sanitation District is at risk of dam failure incidents based on its location downstream of the Lopez and Terminal Dams. The Terminal Dam is a concern, but nearly all of its potential inundation zone exists well within the inundation zone of the Lopez Dam, which is over 60 times larger and located just upstream. Lopez Dam is a high hazard earthen dam located about eight miles northeast of Arroyo Grande. If this dam were to fail and flood the Arroyo Grande River into the Sanitation District or any of its three-member communities, major damages can be expected; it could inundate much of Grover Beach, Arroyo Grande, and the Oceano CSD. A failure of the Lopez Dam would also affect Highway 101 and other important local roads, hence impeding or reducing flows of goods, people, and resources into and out of the cities and CSD, potentially impacting the entire region. Additionally, the District's wastewater treatment facility is within the inundation zone.

This hazard is rated **medium** significance for the Sanitation District.

Figure U-4 South San Luis Obispo County Sanitation District Dam Inundation



Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
NID 2024, Department of Water Resources (DWR),
Division of Safety of Dams (DSOD)

U.3.3.7 Drought and Water Shortage

SSLOCSD faces drought risks that align with broader regional challenges but are uniquely tied to wastewater treatment operations and infrastructure reliability. Prolonged droughts can reduce influent flows to the treatment plant, affect the availability of recycled water, and increase concentrations of pollutants in wastewater streams, impacting treatment efficiency and compliance with discharge regulations. Additionally, reduced groundwater levels in the service area may affect wastewater infiltration rates and contribute to potential land subsidence, which can damage pipelines and underground infrastructure. Given these operational concerns, drought is a **high** significance hazard for the District.

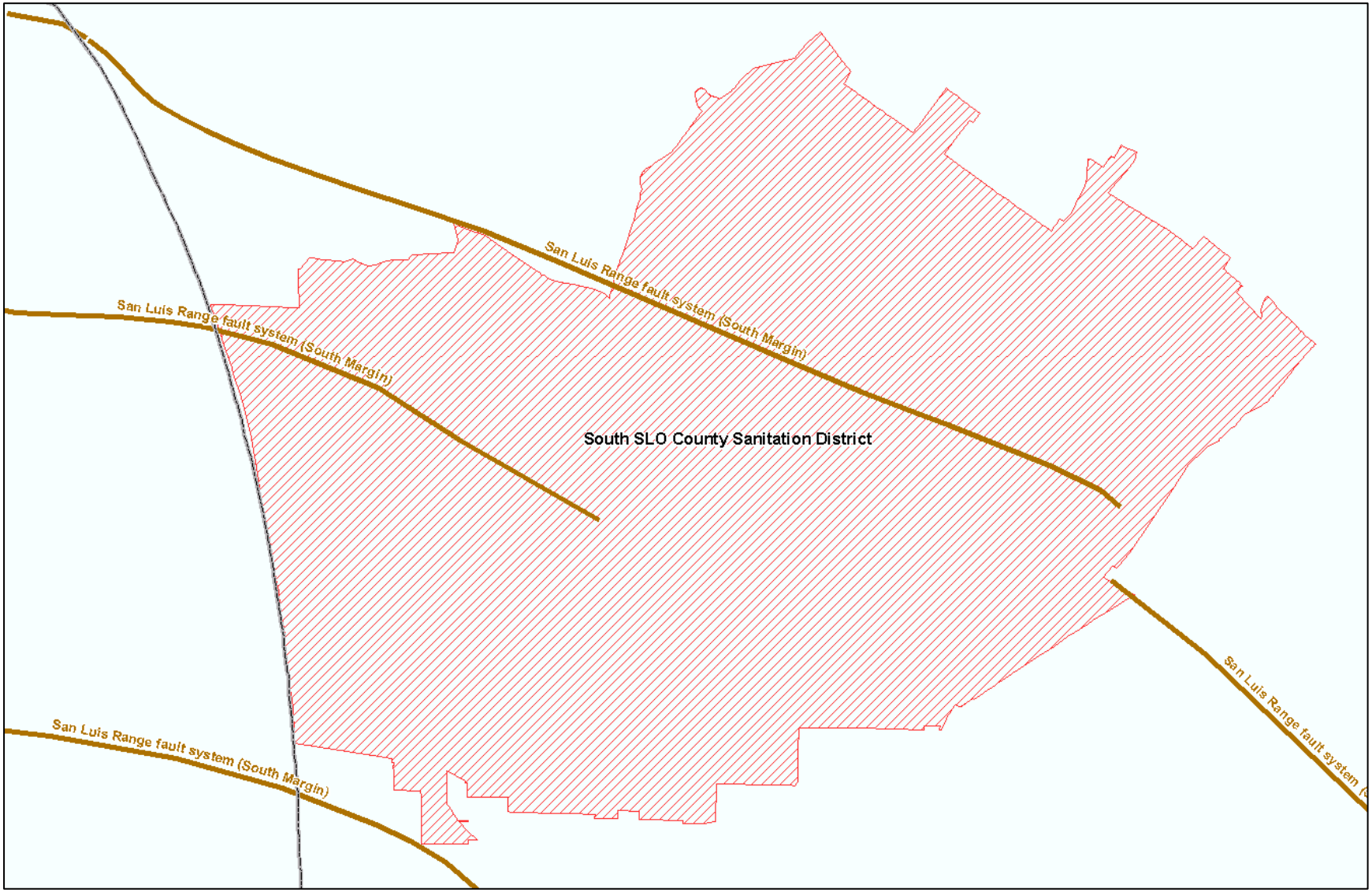
Drought directly impacts the District's ability to maintain consistent wastewater treatment processes. Lower water availability leads to higher wastewater concentrations, requiring adjustments in treatment operations to manage elevated salinity, increased organic loads, and potential chemical imbalances. Additionally, reduced flows in receiving water bodies can affect the dilution capacity for treated effluent, potentially leading to challenges in maintaining water quality. Infrastructure maintenance becomes more critical during droughts, as aging sewer lines and treatment components may be more prone to damage due to shifting soils or decreased infiltration into the wastewater system.

The District's wastewater infrastructure, including its treatment plant, pumping stations, and sewer mains, is vulnerable to drought-related supply reductions. Prolonged droughts reduce the availability of supplemental water sources, which may be necessary for treatment processes, equipment cooling, and facility operations. Additionally, increased groundwater pumping in the region places pressure on local aquifers, potentially affecting infiltration and inflow dynamics within the wastewater system. The region's coastal proximity also raises concerns about saltwater intrusion into groundwater, which could further complicate treatment operations and infrastructure longevity. Wastewater treatment sustainability and effluent discharge compliance will continue to be a concern, particularly as drought frequency and severity increase.

U.3.3.8 Earthquake and Liquefaction

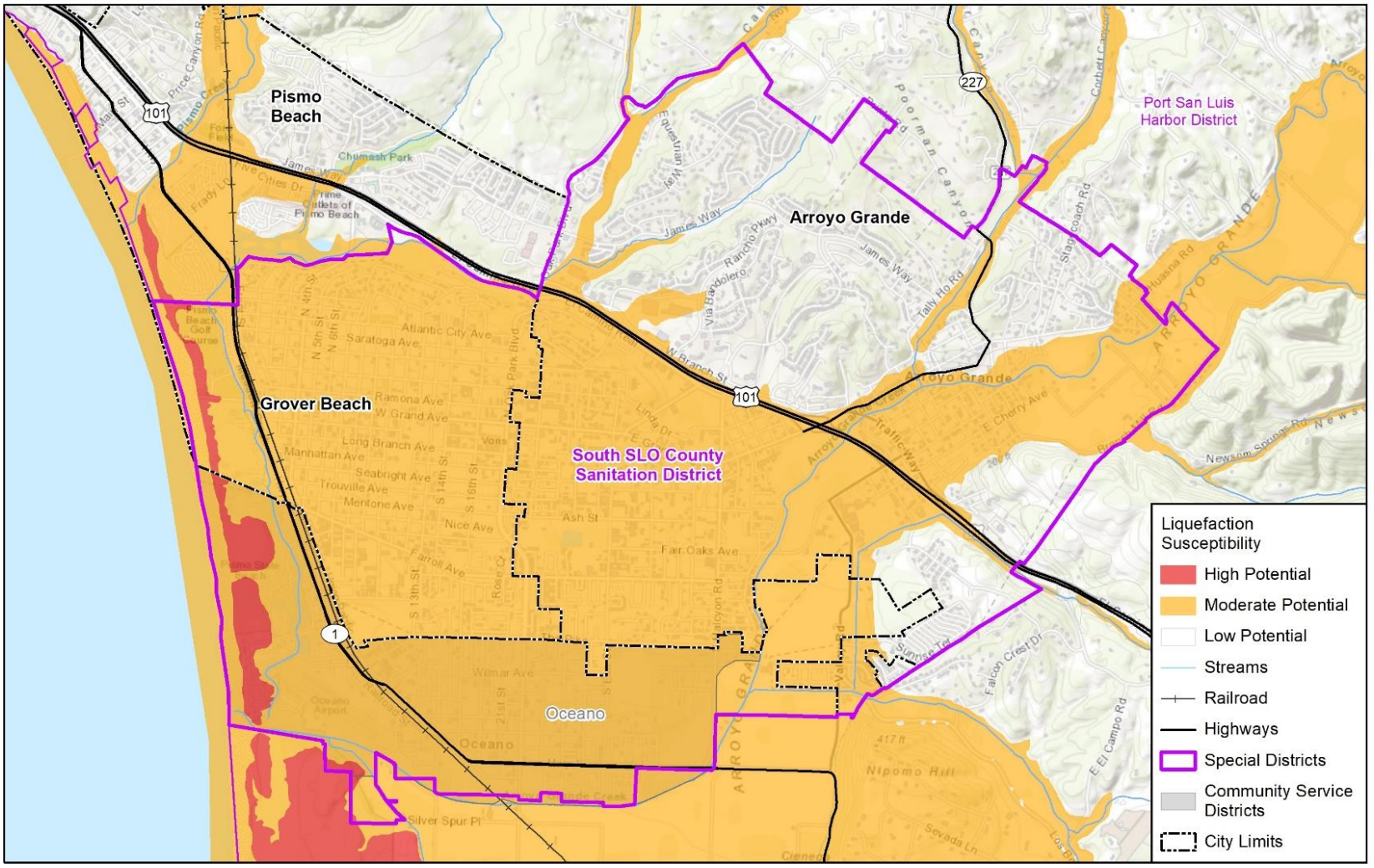
The Sanitation District is underlaid by several earthquake faults such as those part of the San Luis Range/South Margin fault system. Damages to facilities and infrastructure from seismic activity or liquefaction could also impede the ability of the District to perform its core functions, with an extended downtime impacting the recovery of the wider community and San Luis Obispo County as a whole. Overall, earthquake and liquefaction hazards (both of which are discussed in more detail in Section 5.3.7 of the Base Plan) are ranked as **high** significance hazards due to the large degree of liquefiable soil risk in the Grover Beach, Arroyo Grande, and Oceano communities (see each respective City or CSD Annex for more information).

Figure U-5 Earthquake Faults near the Sanitation District



Source: USGS; San Luis Obispo County Planning and Building; LAFCO

Figure U-6 South San Luis Obispo County Sanitation District Liquefaction Susceptibility



U.3.3.9 Flood

Flood hazards in the District primarily stem from riverine, estuarine, and coastal sources, with the greatest exposure tied to the hydrologic behavior of Arroyo Grande Creek, Meadow Creek, and their associated lagoons. The District facility sits near the confluence of these waterways, adjacent to the Arroyo Grande Lagoon and approximately 500 meters inland from the Pacific Ocean. FEMA-designated floodplains (Zones AE and VE) are present throughout this area, reflecting a convergence of fluvial and coastal risks. The facility is protected in part by the Arroyo Grande Creek Levee System, which confines flow from the Los Berros confluence westward toward the beach. This levee has a documented history of overtopping and through-seepage, including a significant breach in 2001 and recent vulnerabilities observed in January 2023.

Following the storms of January and March 2023, extensive repair and reinforcement activities were carried out to restore the 10-year flood carrying capacity of the levee system. Turf reinforcement mats were replaced, sediment and vegetation removal was completed, and breach repairs were prioritized near the railroad right-of-way. In 2024, the County planned the installation of hydraulic cutoff walls at four levee locations to reduce seepage, alongside continued sediment monitoring and vegetation clearing under the Waterway Management Program (WMP).

The District also implements its own flood protection and storm preparation measures at the wastewater treatment facility. Since 2019, no flood-induced operational failures have occurred, aside from a March 2020 coupling failure during high flows that released 5,000 gallons of treated effluent. In anticipation of high rainfall events during the 2023–2024 season, District staff implemented a standardized suite of preparations, including draining chemical containment tanks, inspecting backup systems and sump pumps, and verifying emergency supplies. Even during the wettest winters on record, no flooding has been recorded within the facility footprint, only minor ponding during high flow conditions.

Additionally, the District completed construction on a major Wastewater Treatment Facility Redundancy and Improvements Project. This project will provide 0.2% annual chance (500-year) flood protection for critical infrastructure via flood gates and elevation improvements, with targeted protections between 14.75 and 15.25 feet NAVD88. Although the site will meet this level of protection, access roads will remain more vulnerable to future events exceeding 2023 levels.

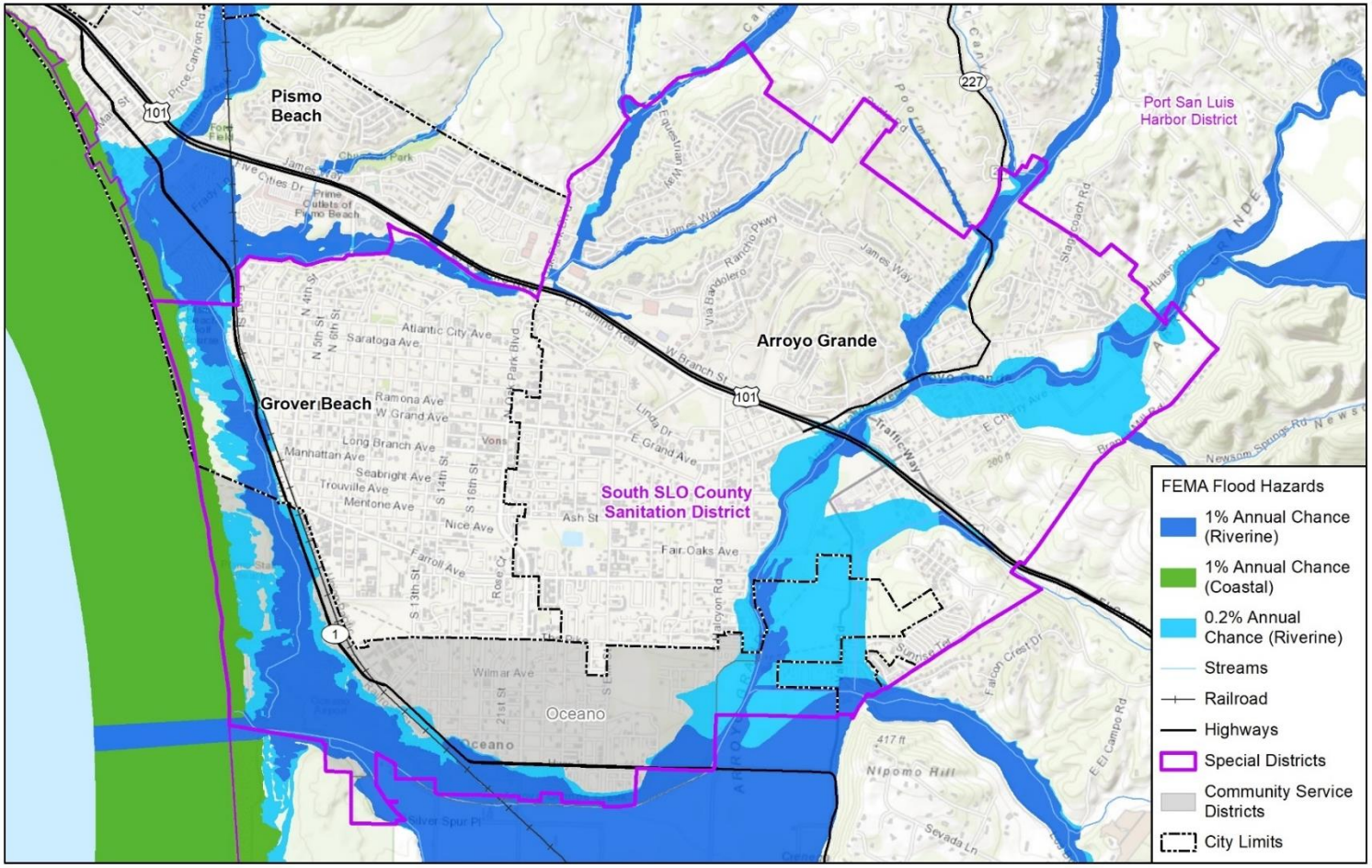
Monitoring of flood hazard triggers, such as water levels in Arroyo Grande Lagoon and overtopping of the north levee, is ongoing. Post-event inspections, stream gauge data, and adaptive monitoring protocols inform annual planning and emergency readiness. The District continues to refine flood triggers to improve their predictive accuracy, including duration-based thresholds and site-specific assessments.

Finally, the District benefits from the efforts of its regional partners. The Oceano CSD completed Phase 1 of a $2.5 million stormwater recharge project, which will reduce runoff into Meadow Creek near the District site. Additional vegetation management and channel maintenance is routinely conducted by State Parks and the County to mitigate upstream flooding that could impact the District facility.

Figure U-7, below, shows the District's DWR & FEMA Flood Hazard boundary extents.

The District remains an active stakeholder in regional water and flood planning and supports the County's participation in the National Flood Insurance Program (NFIP). Overall, flood hazards remain a significant concern due to the low-lying coastal geography and hydrologic convergence in the area. Flood is rated as a **medium** significance hazard for the District. For more information on flooding, please refer to Section 5.3.8 of the Base Plan.

Figure U-7 South San Luis Obispo County Sanitation District DWR & FEMA Flood Hazards

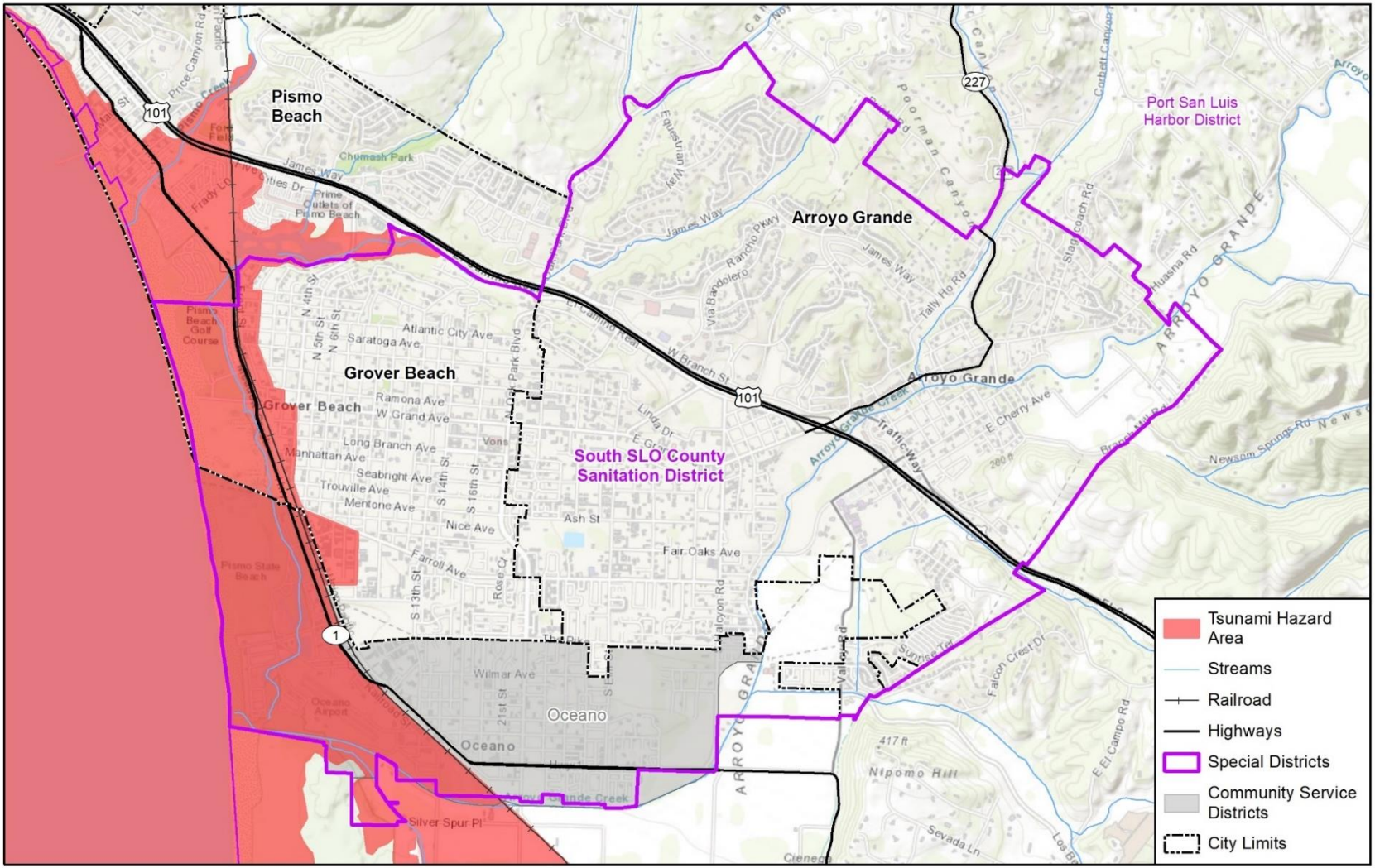


Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
FEMA NFHL Effective 6/6/2024,
DWR, USACE Comprehensive Study

U.3.3.10 Tsunami and Seiche

Tsunamis can be generated by offshore seismic activity and generate strong surges with the potential to damage and inundate coastal areas. Tsunamis generally affect coastal communities and low-lying waterways in the vicinity of the coast. Flooding caused by a tsunami brings with it a massive amount of pollution and debris, along with direct damage to buildings and infrastructure, which could cause catastrophic failure to the districts stormwater management and wastewater treatment systems. Overall, tsunami and seiche hazards have been rated by the planning team as holding **low** significance for the District. More information on Tsunamis and Seiches can be found in Section 5.3.14.

Figure U-8 South San Luis Obispo County Sanitation District Tsunami Hazard

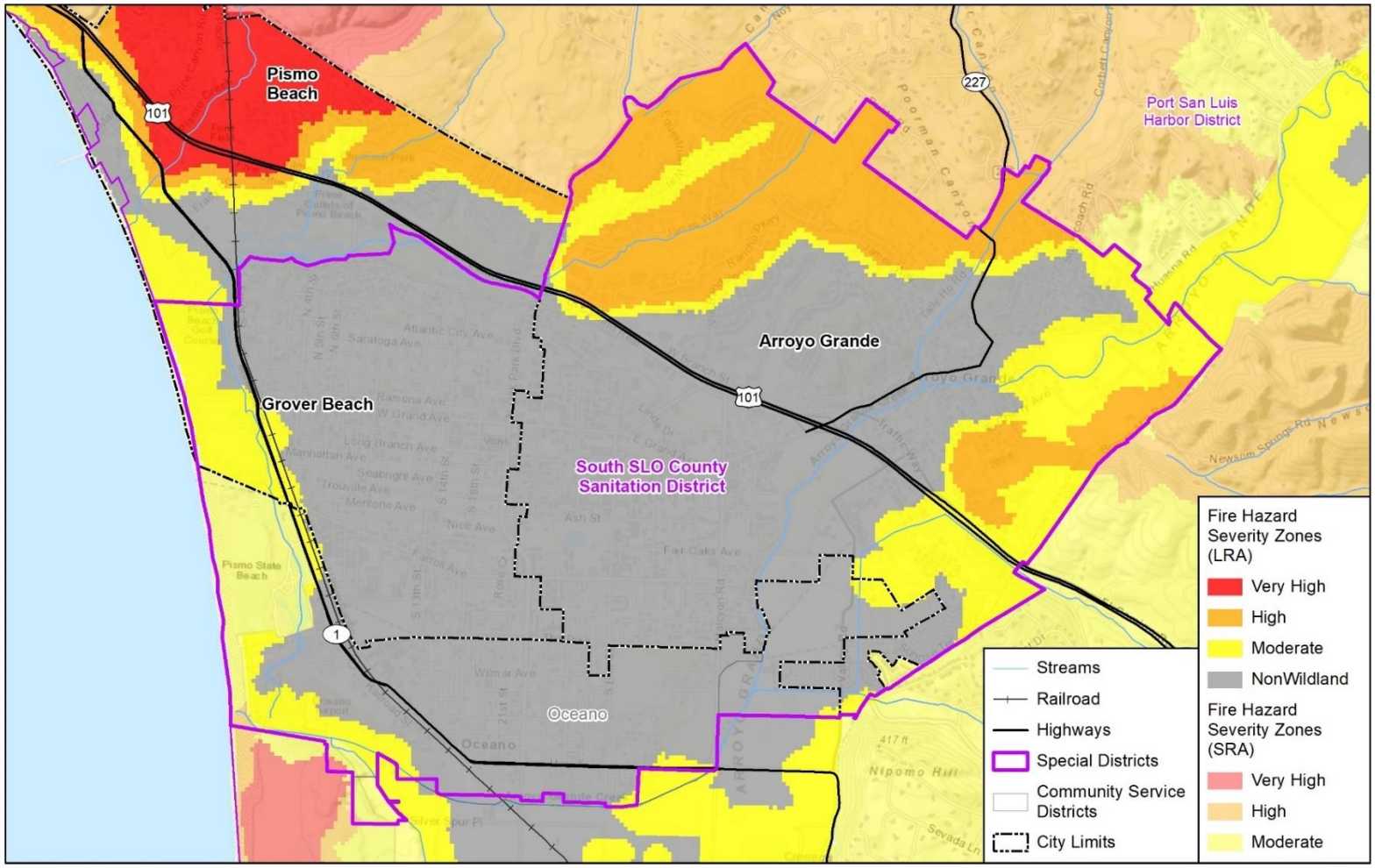


Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County,
California Geological Survey, Department of Conservation

U.3.3.11 Wildfire

The overall hazard significance rating for South San Luis Obispo Sanitation District is rated **low**. The district's main facilities, including wastewater treatment plant and supporting infrastructure, are situated in relatively developed and coastal areas, where the natural vegetation load and wildfire threat are significantly lower compared to inland, rural, or heavily forested areas. Although wildfires are a recognized hazard in San Luis Obispo County, the immediate vicinity of the SSLOCSD facilities is characterized by urban development, agricultural land, and coastal influences. Additionally, the proximity to the ocean affects the humidity levels that can help prevent wildfires in the area. Figure U-9 depicts the Fire Hazard Severity Zones in South San Luis Obispo Sanitation District.

Figure U-9 South San Luis Obispo County Sanitation District Fire Hazard Severity Zones



Map compiled 3/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County, CAL FIRE,
Phase 3 as Identified by the Office of the State Fire Marshal March 10, 2025,
FHSZSRA_23_3, FHSZLRA25_Phase3_v1

U.3.3.12 Hazardous Materials Incidents

The district LPT rated hazardous materials incidents as having **low** overall significance. The Cal OES Spill Release Reporting Center reports 15 hazardous materials incidents in the unincorporated parts of the county from January 1st, 2019 through December 20th, 2024. This likely excludes a number of unreported minor spills. The 15 reported incidents constitutes 3% of the hazardous materials incidents reported countywide during the same time frame and averages out to roughly 2.5 incidents per year.

U.4 Capability Assessment

Capabilities are the programs and policies currently in use to reduce hazard impacts, or that could be used to implement hazard mitigation activities. This capability assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation outreach and partnerships, and other mitigation efforts.

To develop this capability assessment, the jurisdictional and District planning representatives used a matrix of common mitigation activities to inventory policies or programs in place. The team then supplemented this inventory by reviewing additional existing policies, regulations, plans, and programs to determine if they contributed to reducing hazard-related losses.

During the plan update process, this inventory was reviewed by the jurisdictional and district planning representatives and WSP consultant team staff to update information where applicable and note ways in which these capabilities have improved or expanded. In summarizing current capabilities and identifying gaps, the jurisdictional planning representatives also considered their ability to expand or improve upon existing policies and programs as potential new mitigation strategies. The Sanitation District capabilities are summarized below.

U.4.1 Regulatory Mitigation Capabilities

Table U-7 identifies existing regulatory capabilities the District has in place to help with future mitigation efforts. Note: many of the regulatory capabilities that can be used for the District are within the County's jurisdiction. Refer to the Base Plan's Section 6 Capability Assessment for specific information related to the County's mitigation capabilities as well as more details on this topic.

Table U-7 Sanitation District Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/ NO	COMMENTS
General plan	No	
Zoning ordinance	No	
Subdivision ordinance	No	
Growth management ordinance	No	
Floodplain ordinance	No	
Other special purpose ordinance (stormwater, water conservation, wildfire)	Yes	
Building code	No	
Fire department ISO rating	No	
Erosion or sediment control program	No	
Stormwater management program	No	
Site plan review requirements	No	
Capital improvements plan	No	

REGULATORY TOOL	YES/ NO	COMMENTS
Economic development plan	No	
Local emergency operations plan	No	
Other special plans	No	
Flood Insurance Study or other engineering study for streams	No	
Elevation certificates (for floodplain development)	No	

U.4.2 Discussion on Existing Building Codes, Land Use and Development Regulations

Coordination and synchronization with other community planning mechanisms and efforts are vital to the success of this Plan. To have a thorough evaluation of hazard mitigation practices already in place, appropriate planning procedures should also involve identifying and reviewing existing plans, policies, regulations, codes, tools, and other actions are designed to reduce a community's risk and vulnerability from natural hazards.

As an unincorporated community, the South SLO County Sanitation District is referenced in other County and City planning documents and regulated by County policies and planning mechanisms. Integrating existing planning efforts, mitigation policies, and action strategies into this annex establishes a credible, comprehensive document that weaves the common threads of a community's values together. The development of this Special District annex involved a comprehensive review of existing plans, studies, reports, and initiatives from San Luis Obispo County and the Sanitation District that relate to hazards or hazard mitigation. A high-level summary of the key plans, studies and reports is summarized in Table U-8. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the existing Local Hazard Mitigation Plans by Arroyo Grande and Grover Beach, there are County planning mechanisms that regulate future and existing development within the District's planning area. Refer to Sea Level Rise as well as Section 6 of the Base Plan for more information on the plans, policies, regulations and staff that govern the South SLO County Sanitation District.

Table U-8 Summary of Review of Key Plans, Studies, and Reports for the Sanitation District

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
County of San Luis Obispo Local Hazard Mitigation Plan (2014)	Informed past hazard event history, hazard profile and background, and mitigation strategy information.
South SLO County Sanitation District 2018 Strategic Plan	Obtained current District information, ongoing efforts, water use information, etc.
San Luis Obispo County 2014 Integrated Regional Water Management Plan	Obtained information on water use in Nipomo, water management regions, and the drought/water scarcity hazard.
State of California's Hazard Mitigation Plan – Updated 2018	General information on hazards, events, and vulnerability assessments.
San Luis Obispo County Dam and Levee Failure Evacuation Plan – Updated 2016	Flooding, dam, and levee hazard information and recent studies.
2014-2016 Resource Summary Report for San Luis Obispo County's General Plan	Pulled information about water resources, reliability, and ongoing efforts to increase resilience in the county and District of Nipomo as related to drought.

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Multi-Jurisdictional Local Hazard Mitigation Plan for the City of Arroyo Grande, City of Grover Beach, Lucia Mar Unified School District, and the South San Luis Obispo County Sanitation District - 2015	General background information on the Sanitation District and its member communities as well as hazards, events, mitigation capabilities, goals, etc.
Oceano Community Services District Local Hazard Mitigation Plan – 2018	General background information on the community as well as hazards, events, mitigation capabilities, goals, etc.

U.4.3 Administrative/Technical Mitigation Capabilities

Table U-9 identifies the personnel responsible for activities related to mitigation and loss prevention in the South SLO County Sanitation District.

Table U-9 Sanitation District Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/ NO	DEPARTMENT/POSITION/COMMENTS
Planner/engineer with knowledge of land development/land management practices	Yes	District Administrator
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	District Administrator
Planner/engineer/scientist with an understanding of natural hazards	Yes	District Administrator
Personnel skilled in GIS	Yes	Operators
Full time building official	No	
Floodplain manager	No	
Emergency manager	No	
Grant writer	No	
Other personnel	Yes	District Administrator (Professional Engineer), Certified Wastewater Treatment Plant Operators, ELAP Certified Laboratory Technician, Secretary/Bookkeeper
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	Arc GIS of Trunk Sewer Line
Warning systems/services (Reverse 9-11, outdoor warning signals)	No	

U.4.4 Fiscal Mitigation Capabilities

Table U-10 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

Table U-10 Sanitation District Fiscal Mitigation Capabilities

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Community Development Block Grants	No
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	No

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Fees for water, sewer, gas, or electric services	Yes
Impact fees for new development	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activities	No
Withhold spending in hazard prone areas	No

U.4.5 Mitigation Outreach and Partnerships

The South SLO County Sanitation District runs a responsible water use outreach program to encourage conservation and efficiency by sending out public notices via quarterly newsletters, school outreach efforts, and bill stuffers for water conversation, responsible water use, and sewer misuse examples. Other outreach, partnership, and general District efforts include those stated in existing planning mechanisms such as the Local Hazard Mitigation Plan shared by the participating jurisdictions (Arroyo Grande and Grover Beach) and the special district (Oceano).

U.4.6 Opportunities for Enhancement

Based on this capability assessment and the noted information from existing plans and efforts, the South SLO County Sanitation District has several existing mechanisms in place that help to mitigate hazards. There are also opportunities for the District to expand or improve on these policies and programs to further protect their infrastructure and the communities they serve.

Future improvements may include providing training for staff members related to hazards or hazard mitigation grant funding in partnership with the County and Cal OES. Additional training opportunities will help to inform District staff and board members on how best to integrate hazard information and mitigation projects into the District policies and ongoing duties of the District. Continuing to train District staff on mitigation and the hazards that pose a risk to the South SLO County Sanitation District will lead to more informed staff members who can better communicate this information to the public and prevent or respond to changes in development and the District makeup overall.

The Planning Team for the District noted that South SLO Sanitation District often seeks to find opportunities to reinforce and strengthen its infrastructure during the initial design of facilities planned to be built. The District has developed a robust Coastal Hazards Monitoring Plan. To enhance its mitigation efforts, District could update and integrate its Coastal Hazards Monitoring Program with County-wide flood alert and emergency management systems, while also refining and publishing clearly defined flood triggers and response protocols informed by multi-year monitoring data.

Strengthening coordination with nearby jurisdictions and regional partners, particularly around shared watershed concerns like the Arroyo Grande Lagoon, could support more effective joint mitigation strategies. The District could also engage with local emergency services to ensure the wastewater treatment plant is incorporated into regional evacuation, continuity of operations, and communication plans. Collaborating with local schools or universities could provide valuable research support on issues such as sea level rise, erosion, and treatment technology.

U.5 Mitigation Strategy

U.5.1 Mitigation Goals and Objectives

The Sanitation District adopts those hazard mitigation goals and objectives developed by the County Planning Team and described in Section 7 of the Base Plan: Mitigation Strategy.

U.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the South San Luis Obispo Sanitation District LPT reviewed all the mitigation actions from the 2019 plan. The LPT identified that two actions that were completed, described in Table U-11.

Table U-11 South San Luis Obispo Sanitation District Completed Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
SD.2	Flood; Coastal Flood/ Coastal Erosion/ Sea Level Rise; Earthquake, Dam incident	Redundancy Project - Flood Risk Mitigation Strategy. All critical new and existing facilities will be installed or upgraded to be protected from the 100-year flood event on Arroyo Grande Creek as defined by Flood Insurance Rate Map (FIRM) maps. This would also protect these facilities from floods caused by sea level rise for the design life of the facilities and provide additional protection from dam incident flooding.	SSLOCSD	Completed. Flood mitigation has been installed around existing critical infrastructure throughout the facility. In addition, new structures and equipment were built/installed out of 100-year flood elevation.
SD.3	Earthquake	Wastewater Treatment Plant Redundancy Project – Implementation of liquefaction hazard mitigation measures per the 2019 Redundancy Project Geotechnical Report during construction of additional treatment infrastructure.	SSLOCSD	Completed

U.5.3 Mitigation Actions

The Planning Team for the South SLO County Sanitation District identified and prioritized the mitigation actions detailed in Table U-12 based on the conducted risk assessment. Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. Actions with an asterisk (*) are those that mitigate losses to future development.

Table U-12 South SLO County Sanitation District's Mitigation Action Plan

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
SD.1	Adverse Weather: Thunderstorm, High Wind, Extreme Heat; Coastal Storm/Coastal Erosion/Sea Level Rise; Flood, Tsunami	Coastal Monitoring Program. Regularly monitoring flood and other coastal hazards at the site and management responses to those hazards both on and off site. Identifying how those hazards are impacting and affecting operations of the wastewater treatment plant. Identifying changes necessary to allow continued appropriate and required functioning of the plant. Identifying flood/hazard "triggers" to establish when actions (such as retrofits, upgrades, and including plant relocation) need to be pursued in response to specific flood/hazard events or flood management activities.	SSLOCSD	Moderate; HMGP	High	Annual Implementation	Annual Implementation. The District continues its Coastal Hazards Monitoring Program with its last report (monitoring period May 1, 2023 - April 30, 2024) submitted to the California Coastal Commission in June 2024.
SD.2	Dam Incident; Flood; Earthquake, Wildfire	Continue inspection and improvements to wastewater treatment facility critical infrastructure and collection system to ensure resiliency for floods, dam incidents, earthquakes and wildfires.	SSLOCSD	High: Fund 19-Operating Expense, Fund 26 - Replacement	High	Annual Implementation.	Ongoing
SD.3	Drought and Water Shortage	Assess alternate wastewater treatment facility effluent disposal methods. Evaluate options for recycled water use (title 22 and/or IPR), treatment, and disposal to reduce impacts on groundwater basins, reduce seawater intrusion, offset potable water use, offset ag. use. Implement and construct projects and side stream studies.	SSLOCSD, Regional Agencies, Permitting Agencies, Regulatory Agencies.	High	Medium	Ongoing	Ongoing

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
SD.4	Hazmat; Earthquake	District maintains an up-to-date Hazard Materials Business Plan which includes an inventory of hazardous materials on site, emergency communications, phone numbers, notifications, emergency containment and cleanup procedures, facility evacuation, arrangement for emergency services, emergency equipment inventory, and includes employee training on handling of hazardous materials and/or hazardous wastes during normal and/or emergency operations.	SSLOCSD	Moderate	Medium	Ongoing	Ongoing

U.6 Implementation and Maintenance

Moving forward, the South SLO County Sanitation District will use the mitigation action table in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Section 8 Implementation and Monitoring of the Base Plan.

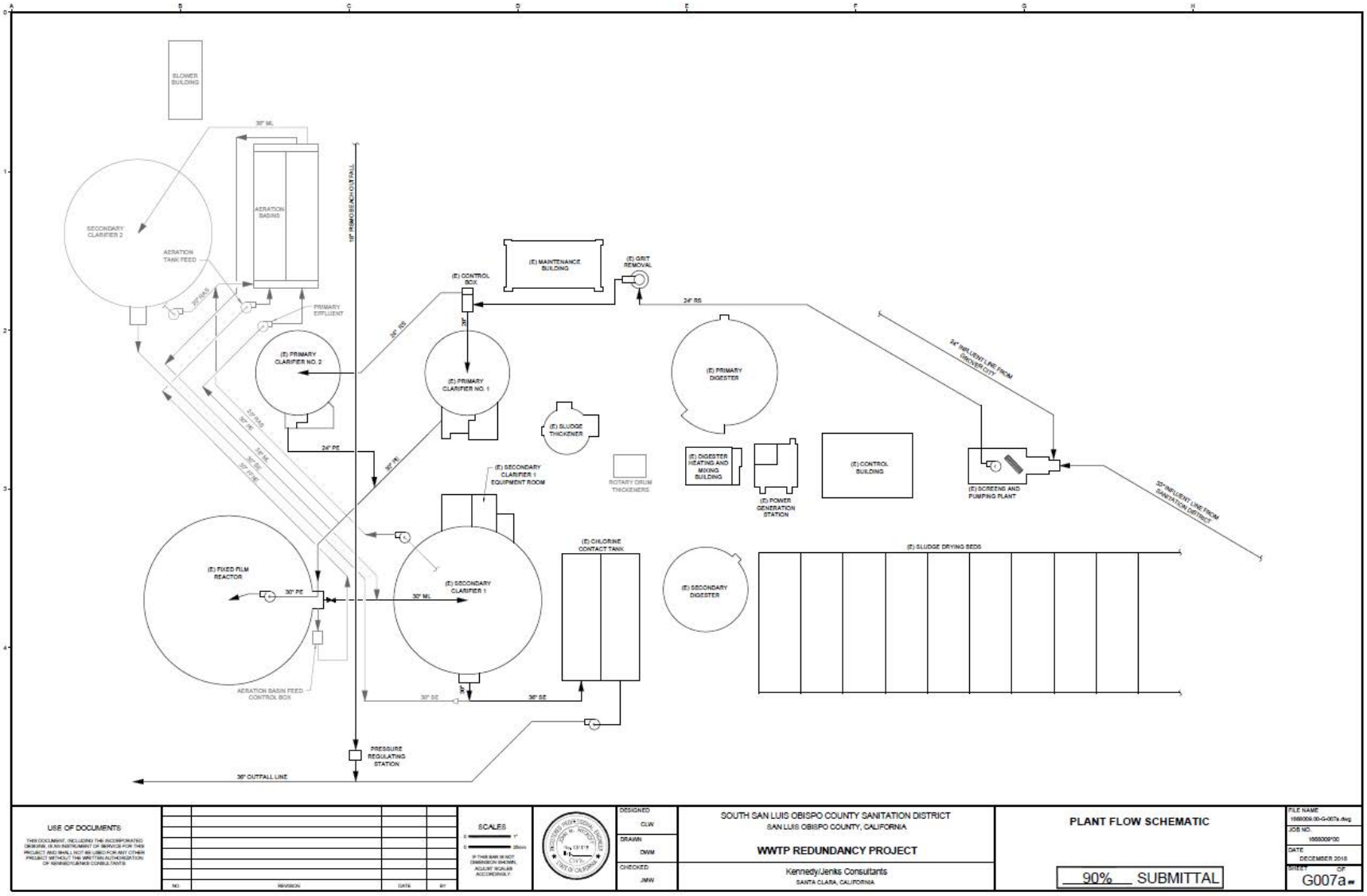
U.6.1 Incorporation into Existing Planning Mechanisms

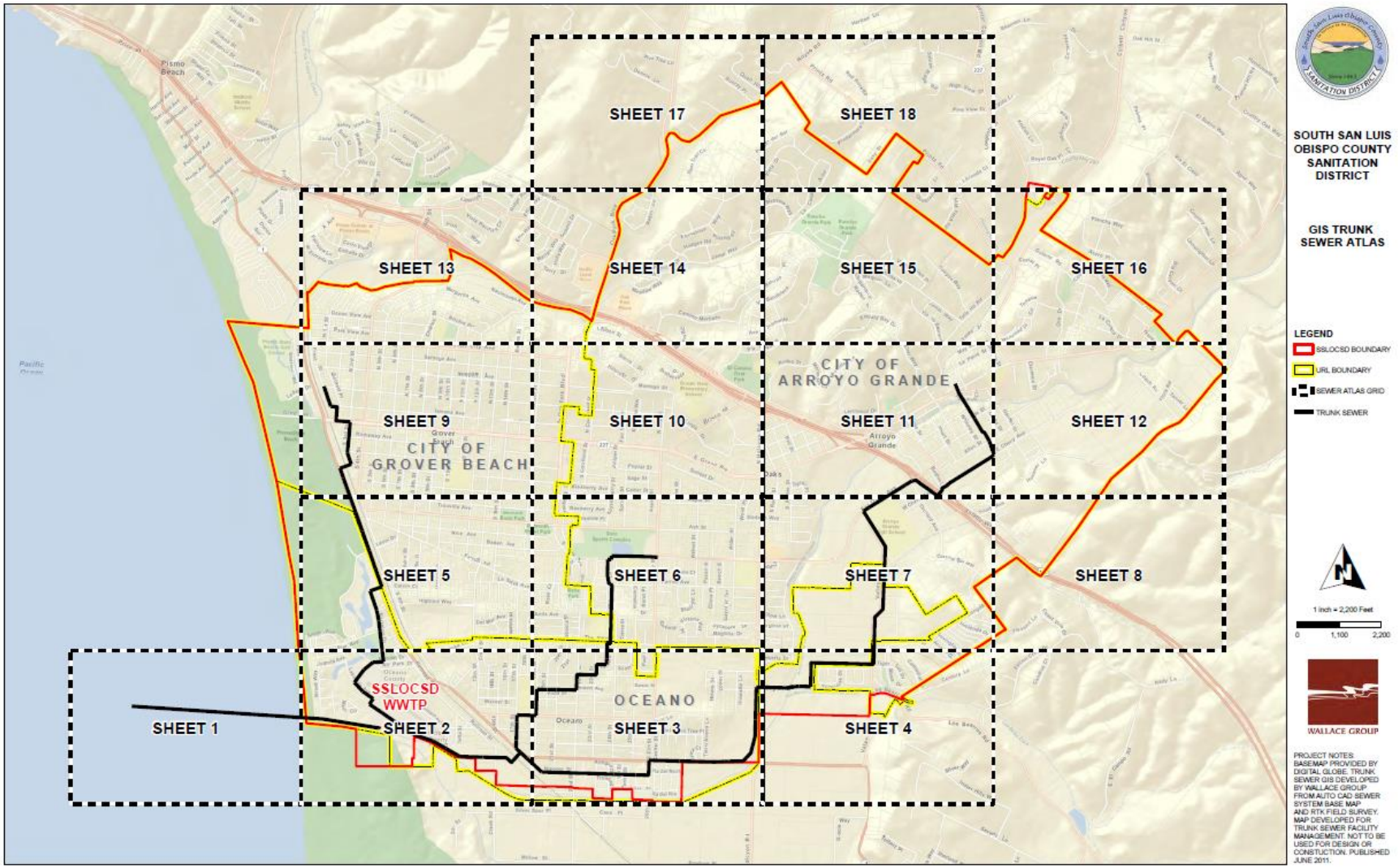
The information contained within this annex and the Base Plan, including results from the Vulnerability Assessments and the Mitigation Strategy, will be used by the District to help inform updates of the Sanitation District's existing plans (e.g. Strategic Plan) as well as in the development of additional local plans, programs, regulations, and policies. Understanding the hazards that pose a risk and the specific vulnerabilities to the District and its sphere of influence will help in future capital improvement planning and development for the District. The San Luis Obispo County Planning & Building Department may utilize the hazard information when reviewing a site plan or other type of development applications within or nearby the boundaries of the South SLO County Sanitation District area. As noted in Section 8 Implementation and Monitoring, the Planning Team representative/s from the South SLO County Sanitation District will report on efforts to integrate the hazard mitigation plan into local plans, programs, regulations, and policies and will report on these efforts at the annual Hazard Mitigation Plan and Planning Team review meeting.

U.6.2 Monitoring, Evaluation and Updating the Plan

The South SLO County Sanitation District will follow the procedures to monitor, review, and update this plan in accordance with San Luis Obispo County as outlined in Section 8 of the Base Plan. The District will continue to involve the public in mitigation, as described in Section 8.3 of the base plan. The CSD General Manager will be responsible for representing the Community Services District in related County Hazard Mitigation Plan meetings or events, and for coordination with County staff and departments during plan updates. The Sanitation District realizes it is important to review the plan regularly and update it every five years in accordance with the FEMA Disaster Mitigation Act Requirements as well as other State of California requirements.

U.7 Attachments


BLOWER BUILDING
AERATION BASINS
SECONDARY CLARIFIER 2
AERATION TANK FEED
PRIMARY EFFLUENT
(E) PRIMARY CLARIFIER NO. 2
(E) PRIMARY CLARIFIER NO. 1
(E) CONTROL BOX
(E) MAINTENANCE BUILDING
(E) GRIT REMOVAL
(E) PRIMARY DIGESTER
(E) SLUDGE THICKENER
ROTARY DRUM THICKENERS
(E) DIGESTER HEATING AND MIXING BUILDING
(E) POWER GENERATION STATION
(E) CONTROL BUILDING
(E) SCREENS AND PUMPING PLANT
24" INFLUENT LINE FROM GROVER CITY
30" INFLUENT LINE FROM SANITATION DISTRICT
(E) SECONDARY CLARIFIER 1 EQUIPMENT ROOM
(E) FIXED FILM REACTOR
(E) SECONDARY CLARIFIER 1
(E) CHLORINE CONTACT TANK
(E) SECONDARY DIGESTER
(E) SLUDGE DRYING BEDS
AERATION BASIN FEED CONTROL BOX
PRESSURE REGULATING STATION
36" OUTFALL LINE
USE OF DOCUMENTS
SCALES
DESIGNED CLW
DRAWN DWM
CHECKED JMW
SOUTH SAN LUIS OBISPO COUNTY SANITATION DISTRICT
SAN LUIS OBISPO COUNTY, CALIFORNIA
WWTP REDUNDANCY PROJECT
Kennedy/Jenks Consultants
SANTA CLARA, CALIFORNIA
PLANT FLOW SCHEMATIC
90% SUBMITTAL
FILE NAME
JOB NO.
DATE DECEMBER 2018
SHEET OF
G007a


SHEET 17
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CITY OF ARROYO GRANDE
SHEET 9
CITY OF GROVER BEACH
SHEET 10
SHEET 11
SHEET 12
SHEET 5
SHEET 6
SHEET 7
SHEET 8
SSLOCSD WWTP
OCEANO
SHEET 1
SHEET 2
SHEET 3
SHEET 4
Pismo Beach
Pacific Ocean
SOUTH SAN LUIS OBISPO COUNTY SANITATION DISTRICT
GIS TRUNK SEWER ATLAS
LEGEND
SSLOCSD BOUNDARY
URL BOUNDARY
SEWER ATLAS GRID
TRUNK SEWER
1 inch = 2,200 Feet
0
1,100
2,200
WALLACE GROUP
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