



Annex K Heritage Ranch Community Services District

K.1.1 District Profile

K.1.2 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. Mitigation actions from the previous MJHMP were used to inform the Capital Improvement Plan (CIP).

Specifically, construction of vertical intake wells was identified as a potential mitigation action, then further expanded upon in the CIP. One such well has been constructed, with another scheduled for implementation in 2025. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The General Manager of the Heritage Ranch Community Services District (HRCSD) was the representative on the County-wide HMPC and took the lead for developing the plan and this annex in coordination with the HRCSD Planning Team. The HRCSD Planning Team will be responsible for implementation and maintenance of the plan. See Table K-1 for more information on the local Planning Team.

Table K-1 Heritage Ranch CSD Hazard Mitigation Plan Planning Team

DEPARTMENT	TITLE
Administration	General Manager
Administration	Administrative Manager
Administration	District Engineer
Operations	Operations Manager

The plan must document opportunities for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies with the authority to regulate development, as well as businesses, academia, and other private and non-profit interests, to actively participate in the planning process. Stakeholder groups are listed below in Table K-2.

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.

Table K-2 Heritage Ranch CSD Stakeholder Groups, Neighboring Communities, and Local Agencies

STAKEHOLDER CATEGORY	ORGANIZATION
Agencies involved in hazard mitigation activities	County of San Luis Obispo
	CALFIRE
Agencies that have the authority to regulate development	County Planning and Building
Neighboring Communities	San Miguel Fire Department Monterey County Water Resources Agency (MCWRA)
Representatives of business academia, and other private orgs	Heritage Ranch Owners Association
Representatives supporting underserved communities	Heritage Village Seniors



K.1.3 District Overview

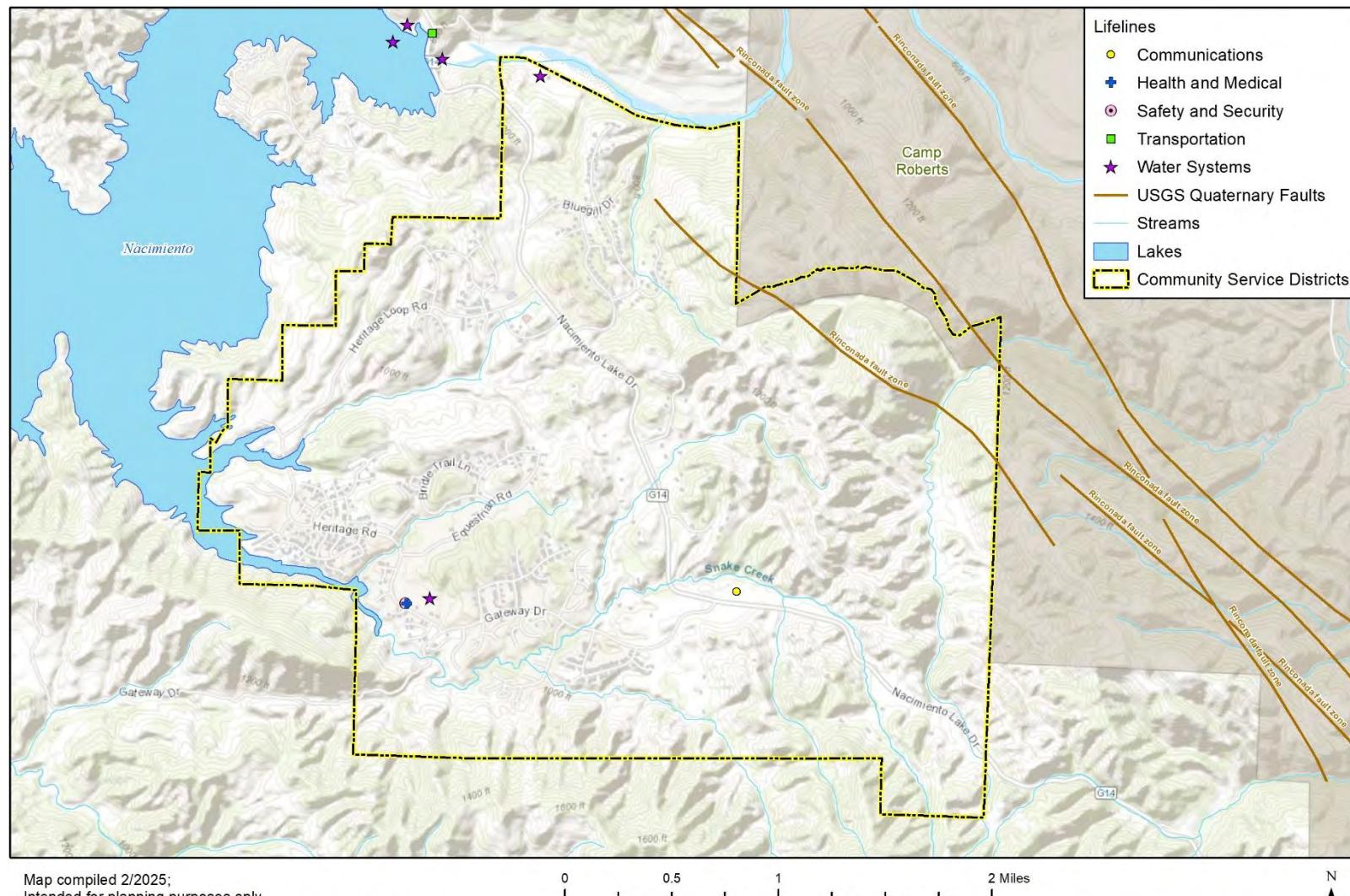
The Village of Heritage Ranch was established in 1972 as a vacation and retirement community, and the Heritage Ranch Community Services District (HRCSD) was formed in 1990 to provide local control of water and sewer services. Heritage Ranch is located in the North County planning area and is one of two village reserve areas situated around Lake Nacimiento. The HRCSD service area is bounded on the west by Lake Nacimiento, on the north by the Nacimiento River, on the east by the Camp Roberts National Guard post, and on the south by private property.

The Village of Heritage Ranch includes both Heritage Ranch, a home and recreation community originally planned for 6,800 dwelling units, and Lake Nacimiento Resort, a complete resort facility with 1,500 campground spaces and day use facilities. The resort is privately owned on land leased from the Monterey County Water and Flood Control District. There is also a marina and campground, dude ranch, and recreation and equestrian centers.

Figure K-1 below shows the boundary of the Heritage Ranch Community Service District.



Figure K-1 Heritage Ranch Community Services District





K.1.4 Development Trends

Future residential development is anticipated to continue to be oriented primarily toward construction of homes, but a modest increase is expected in permanent residents, primarily the retired. Infrastructure improvements are being considered to accommodate the growing population of Heritage Ranch and increased recreational use of Lake Nacimiento. Because of existing concerns about overcrowding at Lake Nacimiento, the most current San Luis Obispo County Inland Area Plan recommends focusing on limiting current recreational use of the reservoir rather than accommodating expansion.

Rural refuse container stations have been recommended in the Inland Area Plan to mitigate illegal dumping in rural areas surrounding the Village of Heritage Ranch.

According to the Heritage Ranch CSD Municipal Service Review as of 2020 HRCSD had an estimated 1,932 housing units and was at 69% of its estimated build-out population of 4,274. With the population at 3,464 in 2023, it went up to 81% of its estimated build-out population. This development trend has slightly increased exposure to wildfire since the plan update in 2019. For all other hazards identified in Section K.3.3, the district's net vulnerability has not increased or decreased due to changes in development since the previous plan was approved.

K.1.5 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 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 Village of Heritage Ranch 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 Village of Heritage Ranch community that relate to hazards or hazard mitigation. A high-level summary of the key plans, studies and reports can be found in Table K-3 below. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the Heritage Ranch Specific Plan, there are County planning mechanisms that regulate future and existing development within the Village of Heritage Ranch planning area. Refer to Section K.4 Capability Assessment as well as the Base Plan for more information on the plans, policies, regulations and staff that govern the Village of Heritage Ranch.

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

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Heritage Ranch Village Plan (2014)	Pulled community background information as well as hazard details
North County Area Plan (2014)	Incorporated hazard information related to water supply
County of San Luis Obispo Local Hazard Mitigation Plan (2019)	Informed past hazard event history, hazard profile and background, and mitigation strategy information.



PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
San Luis Obispo County 2019 Integrated Regional Water Management Plan	Obtained information on water use in the CSD, water management regions, and the drought/water scarcity hazard.
State of California's Hazard Mitigation Plan – Updated 2023	General information on hazards, events, and vulnerability assessments.
2016-2018 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 Heritage Ranch as related to drought.

K.2 Hazard Identification and Summary

The Heritage Ranch CSD planning team identified the hazards that affect the HRCSD and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to the HRCSD (see Table K-4).

Table K-4 Heritage Ranch CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm/ Heavy Rain/ Lightning/ Freeze/ Hail/ Dense Fog	Extensive	Highly Likely	Critical	High
Adverse Weather: High Wind and Tornado	Extensive	Highly Likely	Critical	High
Adverse Weather: Extreme Heat	Extensive	Highly Likely	Critical	High
Dam Incidents	Extensive	Likely	Catastrophic	High
Drought and Water Shortage	Extensive	Highly Likely	Critical	High
Earthquake	Extensive	Occasional	Catastrophic	High
Flooding	Extensive	Likely	Critical	High
Landslide/Debris Flow	Significant	Likely	Critical	High
Wildfire	Extensive	Likely	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.		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
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	

K.3 Vulnerability Assessment

The intent of this section is to assess the HRCSD vulnerability separate from that of the planning area, which has already been assessed in Section 5 Hazard Identification and Risk Assessment (HIRA) in the Base Plan. This vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance.

The information to support the HIRA portion of this Annex was collected through a Plan Update Guide, which was distributed to each participating municipality or 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 Heritage Ranch CSD planning team members were asked to share information on past significant hazard events that have affected the HRCSD.

Each participating jurisdiction were in support of the main hazard summary identified in the Base Plan (See Section 5 of 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 Figure K-1 Heritage Ranch Community Services District). 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 Heritage Ranch CSD planning team input from the Data Collection Guide and the risk assessment results compiled during the planning process (see Section 5 of the Base Plan), which included more detailed quantitative analyses with best available data.



K.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 assessment or mitigation actions:

- Agricultural Pest Infestation and Disease
- Biological Agents
- Coastal Storm/Coastal Erosion/ Sea Level Rise
- Subsidence
- Tsunami
- Hazardous Materials

K.3.2 Assets at Risk

This section considers assets at risk within the District and Village of Heritage Ranch, including values at risk, critical facilities and infrastructure, historic assets, economic assets, and growth and development trends. See Section 5.2 of the Base Plan for more details and background on the parcel summarization, analysis, and datasets available.

K.3.2.1 Values at Risk

This section considers Heritage Ranch CSD'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. Table K-5 summarizes the exposure of properties (e.g., the values at risk based on improvement values, content values, and total values as an addition of these two types of values) broken down by property type for the Heritage Ranch Community Services District.

Table K-5 Heritage Ranch Total Exposure by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Commercial	191	\$9,355,073	\$9,355,073	\$18,710,146
Exempt	3	\$461,068	\$461,068	\$922,136
Mobile Home	674	\$86,763,222	\$43,381,611	\$130,144,833
Multi-Family Residential	1	\$1,074,057	\$537,029	\$1,611,086
Residential	1,062	\$332,210,567	\$166,105,284	\$498,315,851
Vacant Improved	10	\$1,164,133	\$1,164,133	\$2,328,266
Total	1,941	\$431,028,120	\$221,004,197	\$652,032,317

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis

K.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. 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 Heritage Ranch Community Services District is provided in Table K-6 and illustrated in Figure K-1. Refer to Section 5.2 of the Base Plan for more information on the Assets used throughout this annex and the county-wide analyses.

**Table K-6 Heritage Ranch Critical Facilities Assets Summary by FEMA Lifeline**

FEMA LIFELINE CATEGORY	COUNTS
Communications	1
Energy	-
Food, Hydration, Shelter	-
Hazardous Material	-
Health and Medical	1
Safety and Security	1
Transportation	-
Water Systems	2
Total	5

Source: San Luis Obispo County, CalARP, HIFLD, National Bridge Inventory, National Inventory of Dams, FCWCD, WSP Analysis

K.3.2.3 Additional Critical Facilities

Additional critical facilities as identified by the Heritage Ranch CSD Planning Team are as follows:

- Water Treatment and Distribution System - \$30 million replacement value
- Wastewater Collection and Treatment System - \$25 million replacement value
- Administration Building - \$2 million replacement value

K.3.2.4 Emergency Service Facilities

The CSD contains 2 Emergency Services facilities aimed at providing for the health and welfare of the entire community. It is technically one fire station that serves the two purposes of providing fire protection and firefighting capabilities as well as emergency medical services, as stated in Table K-6.

K.3.2.5 Transportation Systems, High Potential Loss Facilities, and Lifeline Facilities

No critical transportation systems were specifically identified in the District, nor were high potential loss facilities. However, two lifeline facilities were noted, one of which is the Heritage Ranch CSD Water Treatment Plant and the other a combination facility containing the Heritage Ranch CSD Wastewater Treatment Plant, the Operations Yard, and the Administrative Building. In addition, it is worth noting that the Village of Heritage Ranch is only accessible via Lake Nacimiento Drive, which links to Highway 101 (a notable transportation route) at two locations. If development occurs to the levels projected for the Village of Heritage Ranch and nearby communities, traffic levels could far exceed the roadway capacity. Upgrades to Lake Nacimiento Drive have been proposed, as has a new collector road that would encircle Lake Nacimiento, passing through the Village of Heritage Ranch and nearby communities.

The only source of potable water for HRCSD is the Nacimiento Reservoir that is dammed by the Nacimiento Dam, which hence impounds Lake Nacimiento. The Monterey County Water Resources Agency (MCWRA) operates the dam (also worth noting as an important facility for the District) for flood protection and water distribution. The HRCSD water treatment facility is located about $\frac{1}{4}$ mile downstream of the dam and receives water via three shallow infiltration gallery wells several feet under the bed of the Nacimiento River. Native material and engineered bedding above and around the gallery wells provide some natural turbidity reduction, which is further reduced by a plate settler before water is processed through sand filters.



K.3.2.6 *Historic and Cultural Resources*

Historical assets include local, county, state, and potentially federally listed historic sites. Based on data provided by the County of San Luis Obispo and LAFCO, it was found that there are no historic and cultural resources in or near the Heritage Ranch CSD.

K.3.2.7 *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. 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. The Heritage Ranch Village Plan (2014) designated the following combining designations that apply to the protection of special resources in the Heritage Ranch community:

- **Nacimiento River and Canyon; Dip, Franklin, Las Tablas, Snake and Town Creeks; and Lake Nacimiento** - These water courses are identified as susceptible to potential flood hazards. Future development proposals must incorporate mitigation measures. All are natural drainage courses which should be maintained in their natural state with native vegetation and habitats retained. At Lake Nacimiento, the 800-foot elevation constitutes the lake's high-water level and no habitable structures are permitted below the 825-foot elevation.
- **The Santa Lucia Range and Foothill Areas** - Portions of this Geologic Study Area (GSA) are exposed to moderately high and high landslide risk potential.
- **Lake Nacimiento Drive Interlake Road** - The portion of this route from Chimney Rock Road northwest to the Monterey County line is an adopted State scenic highway route. All development in this corridor must be sited to minimize visual impacts as this interlake road was classified as a Sensitive Resource Area.

K.3.2.8 *Economic Assets*

According to the Inland Area Plan, prior to the creation of Lake Nacimiento, the population of the sub-area was widely dispersed with most residing and employed on farms and ranches. Despite the rugged terrain of most of the area and the concentration of recreational activities at the lake, the economy of the region surrounding Lake Nacimiento remains agriculture based. Grazing is the primary agricultural pursuit, though some dry farming occurs in limited areas. Commercial activities around the lake are mostly visitor-serving and oriented toward peak use periods.

K.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 Planning Team input) it significantly differs from that of the overall County.

Table K-5 under Section K.3.2 summarizes the Village of Heritage Ranch's exposure in terms of number and value of parcels falling within the district's boundaries. San Luis Obispo County's parcel and assessor data was used to calculate the improved value of parcels, using Parcel Quest's spatial layers on parcel geometry. The most vulnerable structures are those in the parcels within hazard threat areas, unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building or land regulatory codes. Impacts of past events and vulnerability to specific hazards are further discussed below as particular to each hazard. See Section 5 of the Base Plan for more information on assets, parcel analysis methodology, and hazard profiles.



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

Adverse weather for the Village of Heritage Ranch includes thunderstorms, heavy rain, hail, lightning, dense fog, and freeze depending on the time of year. This hazard has been identified as posing **High** significance for HRCSD. The entire property and facility inventory noted in K.3.2, as well as the population, of Heritage Ranch is exposed to the impacts of thunderstorm/heavy rain/lightning/freeze/hail/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. Common problems associated with severe storms include the loss of utilities or immobility. Loss of life is uncommon but can occur during severe storms depending on secondary effects or impacts. Immobility can occur when roads become impassable due to dense fog, heavy rains causing flooding, and downed trees (often referred to as hazardous trees due to the threat they pose).

Being in the northern portion of the county, the Village of Heritage Ranch experiences heavier rainfall compared to the southern portion of the county. Climate change is expected to further increase rainfall in winter months, while decreasing rainfall in spring months. A changing climate will also likely lead to more extreme temperatures, particularly hotter weather in the warmer months. Heavy rain may lead to more debris flows and landslides, as well as erosion and flash or localized flooding, especially over areas that have been impacted by wildfire or other hazards affecting the local landscape. See the Landslide section below for more on this related hazard. Increased seasonal variability in precipitation will likely have an impact on releases from the Nacimiento Dam as well. The potential for downed trees is also a significant concern of the community. The tables below shows key climate variables such as extreme temperatures, precipitation totals, and frequency of specific weather events. Note that Paso Robles weather station is the nearest official reporting site to Heritage Ranch. Section 5 of the Base Plan contains additional information on past adverse weather events in San Luis Obispo County and the Village of Heritage Ranch/Nacimiento Area.

Table K-7 Paso Robles Municipal Airport Climate Summary Table – Weather (Period of Record: 03/18/1952 - 04/20/2025)

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	61.9 °F	33.9 °F	87 °F	12/4/1958	0 °F	1/6/1913	0	41.7
Spring	73.2 °F	41 °F	110 °F	5/31/1910	20 °F	3/2/1971	6.5	7.9
Summer	90.8 °F	49.6 °F	117 °F	8/13/1933	31 °F	6/15/1973	54.5	0
Fall	79.7 °F	41.8 °F	115 °F	9/7/2020	14 °F	11/17/1958	21.1	12.6
Annual	76.5 °F	41.6 °F	117 °F	8/13/1933	0 °F	1/6/1913	82.4	63.2

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 K-8 Paso Robles Municipal Airport Climate Summary Table – Precipitation (Period of Record: 03/18/1952 - 04/20/2025)

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	9.06 in.	26.18 in.	1969	2.03 in.	1964	5.25 in.	12/6/1966	2.4
Spring	3.77 in.	12.84 in.	1995	0 in.	1997	4.7 in.	3/10/1995	0.7
Summer	0.13 in.	2.82 in.	2015	0 in.	1900	2.29 in.	7/19/2015	0



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
Fall	2.07 in.	7.64 in.	1900	0.02 in.	1980	3.88 in.	10/14/2009	0.3
Annual	14.88 in.	29.19 in.	1941	2.78 in.	2013	5.25 in.	12/6/1966	3.5

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

K.3.3.2 Adverse Weather: High Wind and Tornado

The overall significance rating of high wind and tornadoes is Heritage Ranch CSD is rated **High**. The entire property and facility inventory, as well as the population, of Heritage Ranch is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. The district is located near Lake Nacimiento, which has open terrain and rolling hills. These features can channel and amplify wind speeds during storm events, leading to more severe wind impacts compared to other areas in the county. Many structures and utility lines in the area may not be fully equipped to withstand strong wind gusts, especially older buildings or infrastructure not built to current standards. Additionally, a significant proportion (approximately 46.1%) of the total residential units in Heritage Ranch are mobile homes, which are often more vulnerable to the impacts of high winds than single-family residential structures as they are typically not fixed to a foundation. An estimated 1,665 people in Heritage Ranch reside in mobile homes and may be at a greater risk for injury in high wind events. While tornadoes are rare throughout the planning area, the occurrence of an EF1 tornado near Los Osos in 2024 demonstrates that tornadoes, though uncommon, are possible and should be considered in planning.

K.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **high** significance hazard for the Heritage Ranch CSD. The entire property and facility inventory, as well as the population, of Heritage Ranch is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean high summer temperature for the Paso Robles Municipal Airport, the closest NOAA weather station with recent data, is 90.8°F; however, temperatures up to 117°F have been recorded (see Table K-7). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

The Heritage Ranch CSD relies solely on Lake Nacimiento for its water supply. During periods of extreme heat, evaporation rates from the lake increase significantly, contributing to reduced reservoir levels. Combined with prolonged drought, this heightens the risk of insufficient water availability for residential, commercial, and irrigation use.

Lower lake levels can compromise the CSD's ability to extract water due to limitations of pumping infrastructure, even with the installations of vertical intakes and an emergency intake. Reduced inflows and hotter temperatures also exacerbate water quality issues, leading to higher sedimentation, increased concentrations of contaminants, and warmer source water. These conditions could require more intensive treatment, raising operation costs and potentially triggering water use restrictions. Prolonged extreme heat accelerates wear on above-ground utility infrastructure, including pump stations and treatment facilities, by increasing cooling demands and exposing equipment to thermal stress.

Tree mortality linked to drought and extreme heat also increases the likelihood of falling trees impacting critical facilities or disrupting access routes. These factors also contribute to drier vegetation and soil conditions, increasing wildfire risk. The 2016 Chimney Fire, which caused



widespread destruction near the district, was influenced by severe drought and high temperatures.

K.3.3.4 Dam Incidents

HRCSD exists immediately downstream of Nacimiento Dam and Lake (Figure K-2) and rated dam incidents a High significance hazard. The Nacimiento Dam is managed by Monterey County. Though total failure is unlikely, damaging release incidents occurred in 1969, 2006, 2011, and 2017. These events were caused by heavy rains that filled Lake Nacimiento to capacity, prompting Monterey County Water Resources Agency (MCWRA) to lower the spillway, dramatically increasing flows downstream. The 1969 release damaged downstream property and would have destroyed the HRCSD water treatment facility had it existed at the time.

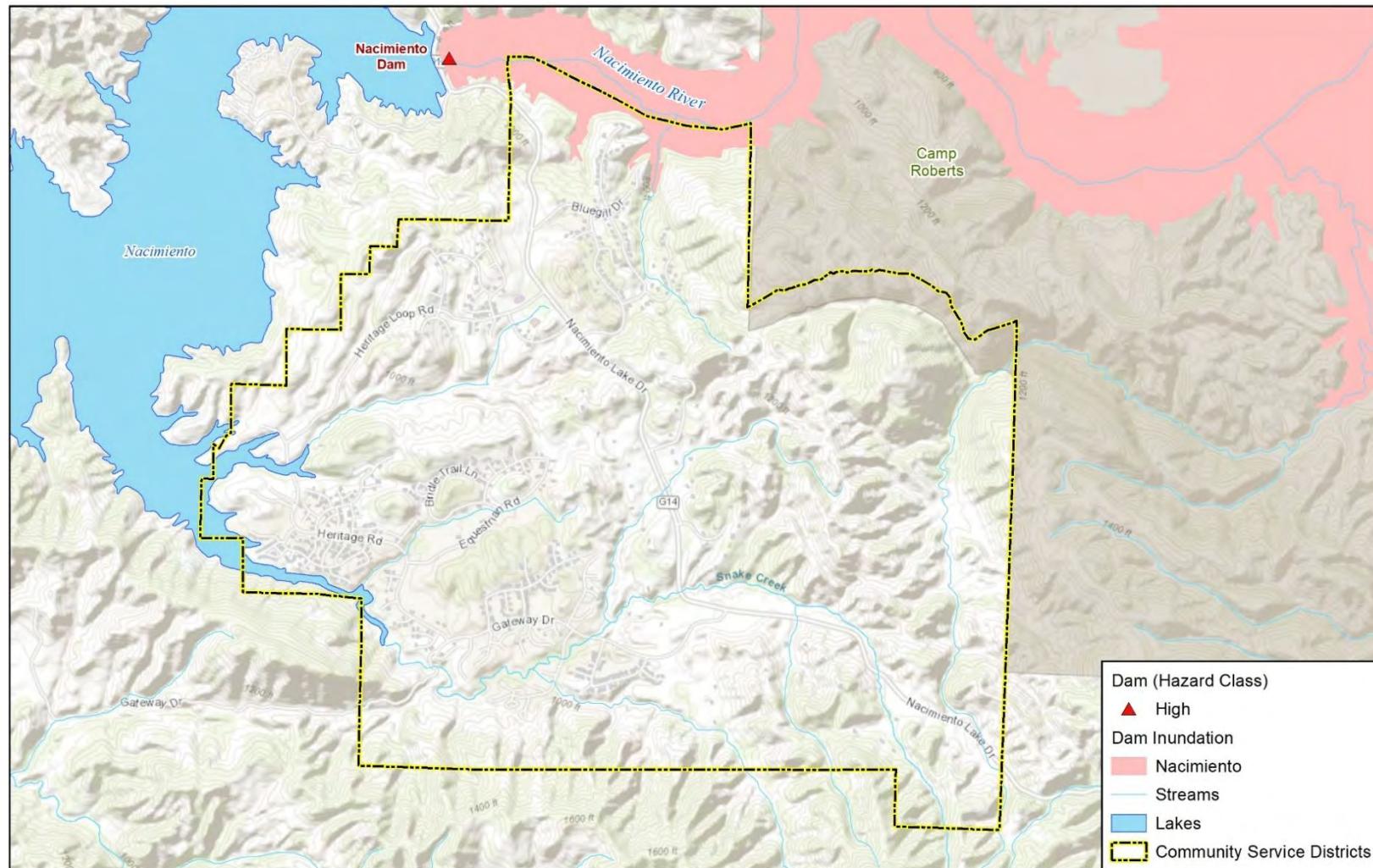
The 2011 release of the Nacimiento Dam increased flows downstream from 400 to 8,100 cubic feet per second (cfs) in less than three hours with sustained flow over 6,000 cfs. This destroyed the HRCSD gallery well system, requiring emergency repairs to be made at a cost of approximately \$375,000. The new gallery wells were lowered three feet, but the system was still incapable of handling flows over 5,000 cfs and was damaged again by releases in 2017. Flows over 5,000 cfs are highly likely to occur in the future according to MCWRA. If the gallery well system cannot be maintained, the water treatment facility will need to be converted to a conventional water treatment plant or receive water through a different intake method. Photos of the Nacimiento Dam uncontrolled releases, spills, and failures are included in Figure K-3.

To alleviate the issues that have occurred in the past with the dam, and because the Nacimiento Reservoir (with water controlled by the Nacimiento Dam) is the only source of potable water to the HRCSD, the Planning Team set goals to prevent dam failure and dam incidents:

- Continue actively engaging with the MCWRA to operate the Nacimiento Dam in a manner more conducive to preventing dam related hazards
- Construction of a vertical well or wells to provide mitigation for both low and high flows related to this and drought hazards.



Figure K-2 Dam Inundation Extents in the Heritage Ranch CSD



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)

0 0.5 1 2 Miles

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Figure K-3 Nacimiento Dam Incidents throughout the Years



Source: Heritage Ranch CSD Planning Team, 2019



In the previous HMP update, only one parcel and no people existed within the potential dam failure inundation zone. Updated information regarding structures on that one parcel and people living within the inundation zone was unavailable for the 2025 update. However, the critical facility analysis indicates one critical facility exists within the potential dam inundation zone, the Heritage Ranch CSD Water Treatment Plant, located on the northwest corner of the CSD's boundary (Table K-9). See Appendix G for additional details of this facility. Refer to Section 5.3.8 Dam Incidents of the Base Plan for additional discussion on the potential impacts of dam incidents in the County.

Table K-9 Heritage Ranch CSD's Potential Exposure to Nacimiento Dam Inundation Extents

COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
-	-	-	-	-	-	-	1	1

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

K.3.3.5 Drought and Water Shortage

Drought and water shortage hazards have been identified as posing **high** significance for the Heritage Ranch CSD. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts do not vary significantly in HRCSD. HRCSD sources its water from Lake Nacimiento. Water is pumped from the lake via a pump station on the southern bank of the Nacimiento River, then treated, stored, and delivered to residential units, businesses, and greenbelts within the district. San Luis Obispo County has an annual entitlement to 17,500 acre-feet of water from Lake Nacimiento, of which HRCSD is currently under contract for 889 acre-feet. In total, the County has set aside a maximum allotment of 1,100 acre-feet for the area, with the remaining 211 acre-feet held by private landowners and the County.

Since the district relies on Lake Nacimiento for water, drought conditions or reduced reservoir levels could limit the available water supply. If lake levels drop too low, pumping infrastructure may struggle to extract sufficient water, leading to restrictions on residential, commercial, and irrigation use. Lower water levels in Lake Nacimiento can lead to higher concentrations of contaminants, increased sedimentation, and warmer water temperatures, potentially compromising water quality. This can result in the need for additional treatment measures, raising operational costs and possibly leading to temporary water advisories.

In 2016 HRCSD constructed an emergency intertie with the Nacimiento Water Project to allow for water intake in conditions where water cannot be released through the dam outlet works. A recycled water study was also completed in 2017 to evaluate water and wastewater treatment and determine the feasibility of recycled water usage. Additionally, a vertical intake project was implemented in 2022, while a second vertical intake was added to the most recent CIP and is scheduled to be implemented in 2025.

This drought hazard, along with adverse weather conditions, was deemed a likely contributing factor to the very destructive 2016 Chimney Fire, which is described in the Wildfire chapter of this annex. As a related drought impact, tree mortality has resulted in potentially vulnerable critical infrastructure property as these vulnerable trees become more susceptible to falling with time and could affect properties in the planning area.



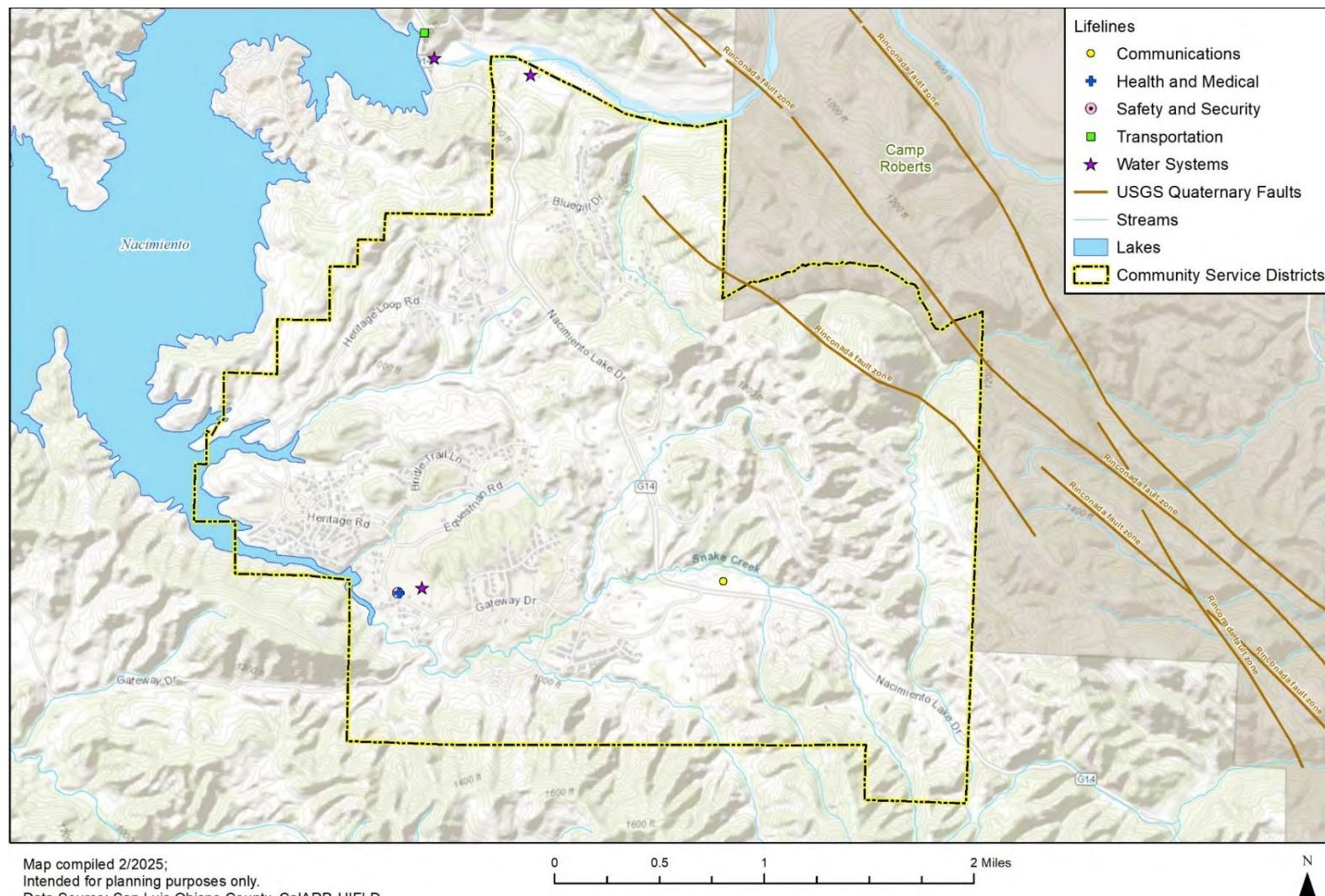
K.3.3.6 Earthquake

Overall, the earthquake hazard has been identified as posing **High Significance** for the Heritage Ranch CSD.

The nearest fault zone to Heritage Ranch is the Rinconada fault zone (see Figure K-4). This regional fault zone is considered to be potentially active and has moderate ground shaking potential. The structure most vulnerable to an earthquake in Heritage Ranch is the Nacimiento Dam which is about three miles from the fault. Failure of the dam due to seismic activity could inundate a small portion of the community and perhaps heavily damage or even destroy the HRCSD water intake system and water treatment plant, eliminating the HRCSD ability to provide safe drinking water to its residents. In addition, seiches could be an issue along the shoreline of the lake, which could cause flooding and damage to nearby structures, properties, and facilities. No moderate or high liquefaction risk has been identified within the district, reducing some risk to the impacts described in Section 5.3.10.8 of the base plan for the community compared to the county as a whole, but the entire population and critical facility inventory is exposed to ground shaking hazards. As such, the area is exposed to seismic hazards from movement along several regional faults and is at more or less the same level of risk for damage from ground shaking as other communities in San Luis Obispo County.



Figure K-4 Earthquake Fault Zones in and near the Heritage Ranch CSD





K.3.3.7 Flooding

Lake Nacimiento, the Nacimiento River, and its associated tributaries have been identified as posing flood hazards. The 2011 dam incident caused significant flooding of the Nacimiento River below the dam. Three to four feet of riverbed material was removed in this incident, blocking some channels and scouring others. This “re-carving” of the channel will likely impact the way future flows are routed through the river. Overall, flood hazards have been identified as posing **High Significance** for the Heritage Ranch CSD.

Heritage Ranch does not participate separately in the National Flood Insurance Program (NFIP) but will continue to support the County's participation in and compliance with the NFIP.

Structures and Population at Risk

A flood vulnerability assessment was completed during the update of the county hazard mitigation plan, following the methodology described in Section 5 of the Base Plan. Table K-10 below summarizes the values at risk in the Village of Heritage Ranch 100-year floodplain (which corresponds to 1% chance of flooding in a 100-year period). Based on this analysis, the Village of Heritage Ranch has only one parcel at risk of flooding in a 100-year event.

Table K-10 Village of Heritage Ranch FEMA 1% Annual Chance Flood Hazard by Property Type

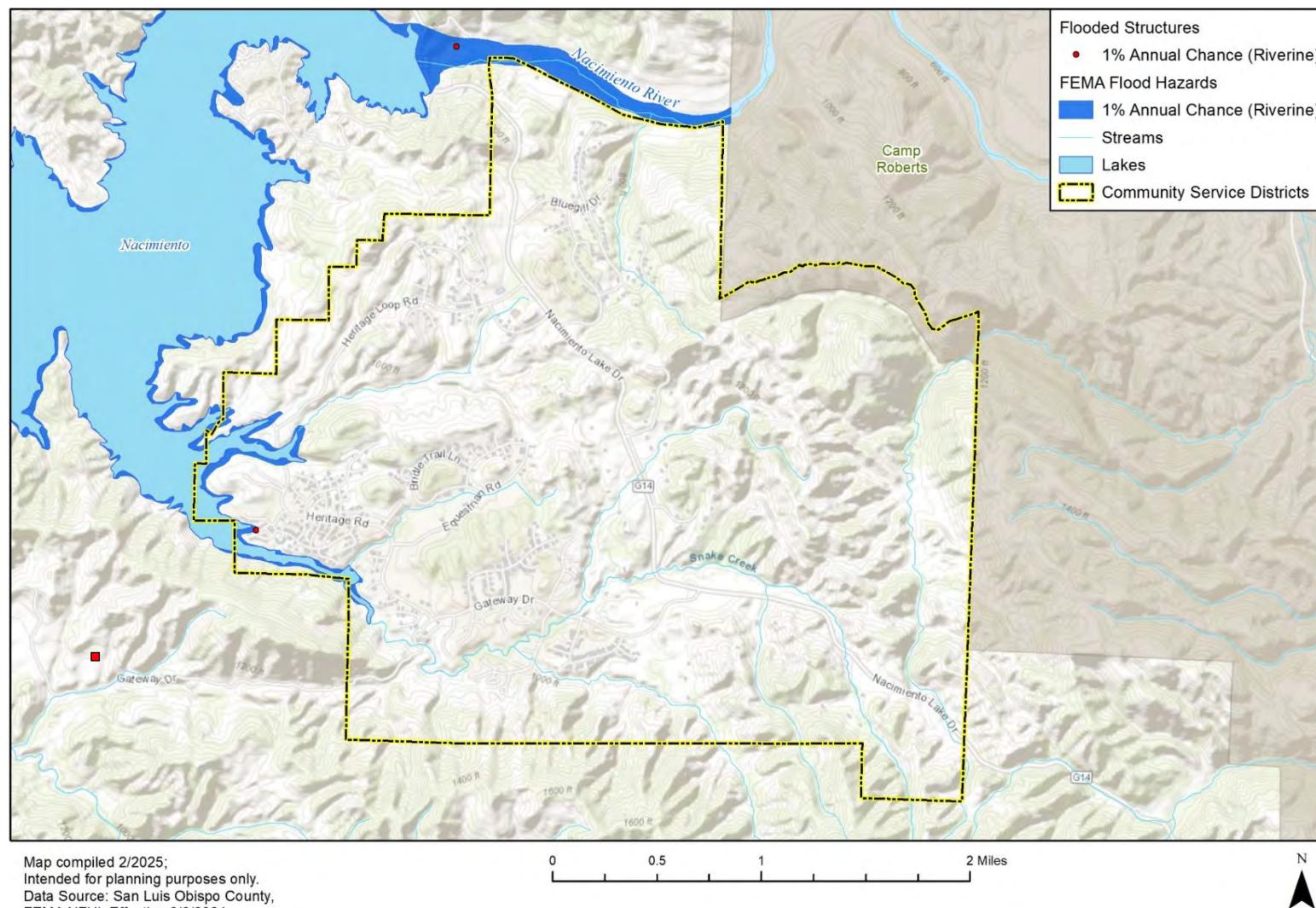
PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION AT RISK
Residential	1	\$295,800	\$147,900	\$443,700	\$110,925	2

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, WSP Parcel Analysis, FEMA NFHL

The figure below displays the parcel flooded by the 100-year event, located on the west side of the district, shown as a purple dot. No population is at risk of flooding from this parcel (as no people are likely to reside in an exempt or miscellaneous property). The Heritage Ranch planning team also noted that the CSD's intake facilities and water treatment facility properties are located approximately where the red square is on, towards the northwest of the CSD boundary. No 500-year floodplains have been identified.



Figure K-5 Heritage Ranch CSD DWR & FEMA Flood Hazards with Flooded Structures





Critical Facilities at Risk

Based on the GIS analysis performed there are no critical facilities located in the 100-year or 500-year flood hazard areas, though the Heritage Ranch CSD's Water Treatment Facility is located in the dam inundation extent of the Nacimiento Dam (see the Dam Incidents section of this document for additional details).

K.3.3.8 Landslides and Debris Flow

Landslide potential and debris flow hazards have been ranked by the Planning Team as posing **High** Overall Significance to the Heritage Ranch CSD.

Heavy rain in the year following the Chimney Fire of 2016 led to a significant debris flow into Lake Nacimiento and the Nacimiento Reservoir. This degraded the quality of water entering the HRCSD water treatment facilities, thus increasing treatment costs which is of high importance as the Nacimiento Reservoir water is the only source of potable water for the community. Such debris flows can also add stress to the dam and require costly removal of sediment and debris. New projects as of January 2024 include upgrading the existing Heritage Ranch Community Services District (HRCSD) water treatment plant and spray field and includes demolition of the existing HRCSD wastewater treatment plant elements and construction of new water resource recovery facility elements.

A similar debris flow is highly likely to occur in the future, as is a landslide. Figure K-6 summarize the parcel values in zones of moderate, high, and extremely high landslide potential. Most properties exist in areas of moderate landslide potential. There is one area near the Nacimiento River in the Northern part of Heritage Ranch with a high potential for a landslide as shown in Figure K-6 below.

Structures at Risk

A vulnerability assessment was completed during the update of the county hazard mitigation plan. Landslide potential was determined for the Village of Heritage Ranch by overlaying the county's parcel layers with the landslide potential zones, all in GIS. Within Heritage Ranch there are 1,941 structures with a value of over \$650 million exposed to landslide potential. Out of these structures residential properties have the highest count at 1,062 with 2,623 people within the district exposed as shown in Table K-11. Based on the GIS analysis performed there are also 5 critical facilities located in high landslide potential areas.

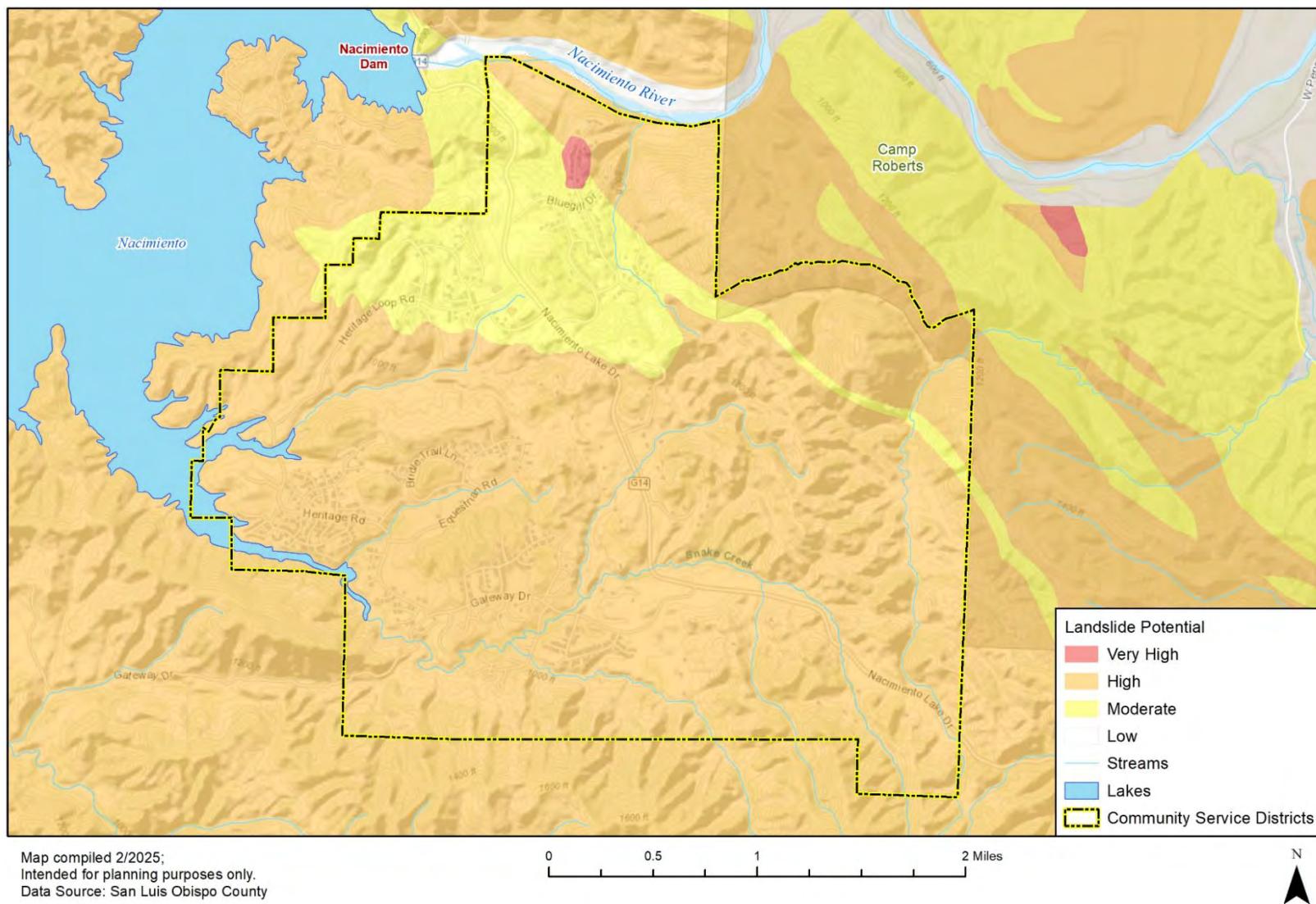
Table K-11 Improved Properties Exposed to Landslide Potential

PROPERTY TYPE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	191	\$9,355,073	\$9,355,073	\$18,710,146	-
Exempt	3	\$461,068	\$461,068	\$922,136	-
Mobile/Manufactured Homes	674	\$86,763,222	\$43,381,611	\$130,144,833	1,665
Multi-Family Residential	1	\$1,074,057	\$537,029	\$1,611,086	2
Residential	1,062	\$332,210,567	\$166,105,284	\$498,315,851	2,623
Vacant Improved	10	\$1,164,133	\$0	\$1,164,133	-
Total	1,941	\$431,028,120	\$219,840,064	\$650,868,184	4,290

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis



Figure K-6 Landslide Potential Hazard Areas in the Village of Heritage Ranch





K.3.3.9 Wildfire

The overall hazard rating for Heritage Ranch CSD is rated as a **high** significance. Heritage Ranch Village has a dry summer climate, which can affect the cause of wildfires in the area. The climate coupled with highly flammable vegetation (including hazardous trees that were flammable or downed and hence dangerous) as well as rugged terrain, fire hazard in Heritage Ranch is high, and fire control is difficult. The Chimney Fire in 2016 injured one person, destroyed 49 residences and 21 other structures, and damaged 8 structures. Drought contributed to this fire which was caused by the ignition of dry grass adjacent to a dirt road. Increased recreation uses will likely intensify the fire hazard in developed areas as well as along the miles of Lake Nacimiento's shoreline accessible by boat.

GIS analysis shows the critical facilities in Heritage Ranch CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there is a total of one (1) critical facilities that fall in the very high fire severity zone rating, four (4) that fall into the high and none moderate fire hazard severity zone rating.

In Heritage Ranch CSD, 1,941 properties are situated within wildfire hazard exposure zones ranging from moderate to very high risk. Of these, 288 properties are located in the Very High Fire Severity Zone, 1,653 are located in the high and none are located in the moderate fire hazard severity zone. These properties represent a total assessed value of \$650,868,184 and impact approximately 4,290 residents across the fire hazard severity zones zones. Table K-12 shows the properties in the district exposed to Fire Hazard Severity Zones. Figure K-7 depicts the Fire Hazard Severity Zones in Heritage Ranch CSD.

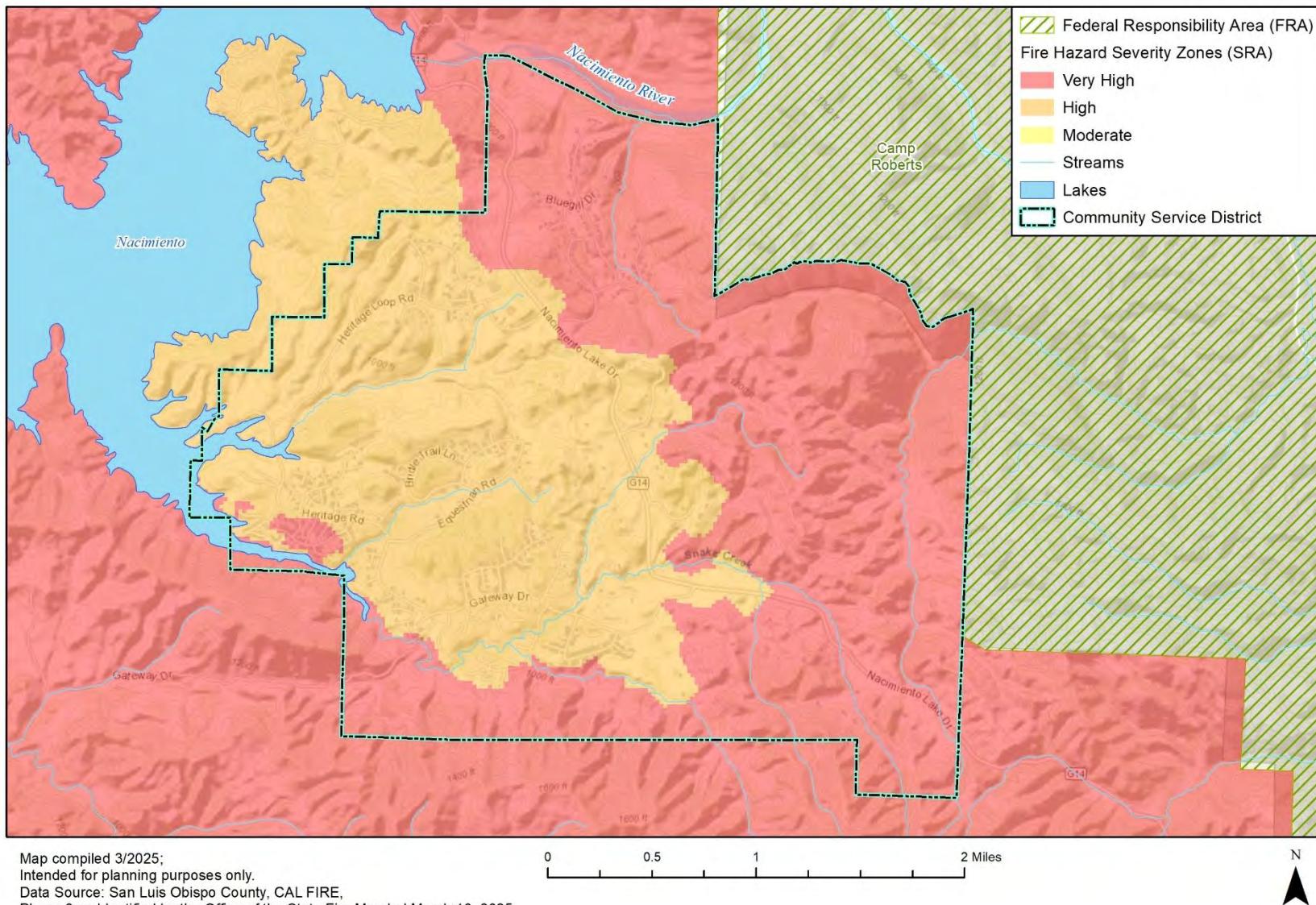
**Table K-12** Heritage Ranch CSD Improved Properties Exposed to Fire Hazard Severity Zones

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	17	174	-	191	\$9,355,073	\$9,355,073	\$18,710,146	-
Exempt	-	3	-	3	\$461,068	\$461,068	\$922,136	-
Mobile/Manufactured Homes	124	550	-	674	\$86,763,222	\$43,381,611	\$130,144,833	1,665
Multi-Family Residential	-	1	-	1	\$1,074,057	\$537,029	\$1,611,086	2
Residential	145	917	-	1,062	\$332,210,567	\$166,105,284	\$498,315,851	2,623
Vacant Improved	2	8	-	10	\$1,164,133	\$0	\$1,164,133	-
Total	288	1,653	0	1,941	\$431,028,120	\$219,840,064	\$650,868,184	4,290

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis



Figure K-7 Heritage Ranch CSD Fire Hazard Severity Zone





K.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 that are 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 Heritage Ranch CSD capabilities are summarized below.

K.4.1 Regulatory Mitigation Capabilities

Table K-13 identifies existing regulatory capabilities the HRCSD has in place to help with future mitigation efforts. Note: many of the regulatory capabilities that can be used for the HRCSD are within the County's jurisdiction. Refer to Section 6 Capability Assessment of the Base Plan for specific information related to the County's mitigation capabilities.

Table K-13 Heritage Ranch CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	Yes	By the County
Zoning ordinance	Yes	By the County
Subdivision ordinance	Yes	By the County
Growth management ordinance	Yes	By the County
Floodplain ordinance	Yes	By the County
Other special purpose ordinance (stormwater, water conservation, wildfire)	Yes	By the County
Building code	Yes	By the County
Fire department ISO rating	Yes	By the County
Erosion or sediment control program	Yes	By the County
Stormwater management program	Yes	By the County
Site plan review requirements	Yes	
Capital improvements plan	Yes	
Economic development plan	No	
Local emergency operations plan	Yes	
Other special plans	Yes	
Flood Insurance Study or other engineering study for streams	Yes	By the County
Elevation certificates (for floodplain development)	Yes	By the County

Source: Wood Data Collection Guide, 2019



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

Heritage Ranch Community Services District operates under the county's jurisdiction building codes, land use, and development regulations. The area is governed by the California Building Standards Code (title 24), adopted and enforced by San Luis Obispo County Planning and Building Department. Land use and zoning in Heritage Ranch are guided by the San Luis Obispo County Land Use Ordinance (Title 22), particularly Article 10. Additionally, the Heritage Ranch Plan provides detailed policies and programs tailored to the community. This plan works in conjunction with the North County Area Plan.

K.4.3 Administrative/Technical Mitigation Capabilities

Table K-14 identifies the personnel responsible for activities related to mitigation and loss prevention in the Heritage Ranch Community Services District.

Table K-14 Heritage Ranch CSD Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION/COMMENTS
Planner/engineer with knowledge of land development/land management practices	Yes	General Manager, District Engineer
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	General Manager, District Engineer
Planner/engineer/scientist with an understanding of natural hazards	No	By the County
Personnel skilled in GIS	Yes	District Engineer
Full time building official	No	By the County
Floodplain manager	No	By the County
Emergency manager	Yes	General Manager
Grant writer	No	Would be able to do if need-driven
Other personnel	Yes	Water and Wastewater Operators; Office Staff
GIS Data Resources - (Hazard areas, critical facilities, land use, building footprints, etc.)	No	By the County
Warning systems/services (Reverse 9-11, outdoor warning signals)	No	By the County

Source: Wood Data Collection Guide, 2019

K.4.4 Fiscal Mitigation Capabilities

Table K-15 identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

Table K-15 Heritage Ranch CSD 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	Yes
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	Yes



FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Incur debt through private activities	Yes
Withhold spending in hazard prone areas	No

Source: Wood Data Collection Guide, 2019

K.4.5 National Flood Insurance Program

As a special district, Heritage Ranch is not eligible to participate in the National Flood Insurance Program (NFIP) and does not have any mapped special flood hazard areas. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

K.4.6 Mitigation Outreach and Partnerships

The Heritage Ranch Community Services District and the Heritage Ranch Owners Association (HROA) generally have the same boundary. The HROA has a safety committee which has Safety Plan separate from those of the HRCSD. Both entities coordinate on water, wastewater, and facility planning and management efforts to operate effectively during an emergency. They additionally maintain a responsible water use policy and disseminate relevant information periodically. For example, the HRCSD recently completed a project in 2016 connecting the HRCSD water system intake facility to the Nacimiento Water Project pipeline for emergency uses, which highlights the community's outreach and partnership/collaboration intents and efforts.

Table K-16 Heritage Ranch CSD Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO	NOTES
Hazard Awareness/Education Campaigns		
Firewise	No	
Storm Ready	No	
Severe Weather Awareness Week	No	
School programs	No	
Other		
Methods Used to Communicate Hazard Info. to the Public		
Local News	No	
Social media	Yes	
Community Newsletters	Yes	
Utility Bill Inserts	Yes	
Community Events	Yes	
Other		
Organizations that represent or work with underserved or vulnerable communities		
American Red Cross	No	
Salvation Army	No	
Veterans Groups	No	
Environmental/Conservation Groups	No	



CAPABILITY TYPE	YES/NO	NOTES
Homeowner/Neighborhood Associations	Yes	
Chamber of Commerce	No	
Community Organizations (Lions, Kiwanis, etc.)	Yes	Heritage Village Seniors

K.4.7 Opportunities for Enhancement

Based on the capabilities assessment, the Heritage Ranch Community Services District has several existing mechanisms in place that already help to mitigate hazards, such as those mentioned in this Annex's hazard profiles and summary sections and in existing planning and community organization mechanisms such as the Heritage Ranch Village Plan. There are also opportunities for the HRCSD 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 HRCSD staff and board members on how best to integrate hazard information and mitigation projects into the District policies and ongoing duties of the HRCSD. Continuing to train HRCSD staff on mitigation and the hazards that pose a risk to the HRCSD will lead to more informed staff members who can better communicate this information to the public.

K.5 Mitigation Strategy

K.5.1 Mitigation Goals and Objectives

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

K.5.2 Completed and Deleted 2019 Mitigation Actions

During the 2024 planning process Heritage Ranch Planning Team reviewed all the mitigation actions from the 2019 plan. During the 2024 planning process the Planning Team identified that of their five actions from 2019, one has been completed, and one has been deleted. The remaining are carried forward into their 2025 Mitigation Action Plan.

Table K-17 Heritage Ranch CSD Completed and Deleted Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
HR.1	Adverse Weather	Consider support for communication towers and other communication infrastructure to be built within the HRCSD Boundary/property to provide expanded warning capabilities related to adverse weather.	Communication companies	Deleted, no longer a priority.



2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
HR.2	Dam Incidents; Drought; Flooding; Landslide /Debris Flow	The District currently has a vertical well project identified to mitigate low flows from the Dam during outages and/or drought, as well as to provide redundancy (mitigate) for high flow releases that have historically damaged or destroyed the current gallery well system. A vertical well(s) would provide mitigation for both low and high flows (drought and Dam incidents). A vertical well(s) would improve raw water quality if debris flow occurs within Nacimiento Reservoir and River like it did after the Chimney Fire.	HRCSD	Completed. Project design 2024/25; Construct 2025. The District completed the vertical well project previously identified to mitigate low flows from the Dam during outages and/or drought, as well as to provide redundancy (mitigate) for high flow releases that have historically damaged or destroyed the current gallery well system. A second vertical well would provide additional mitigation for both low and high flows and would further improve raw water quality.

K.5.3 Mitigation Actions

The Planning Team for the Heritage Ranch Community Services District identified and prioritized the following mitigation actions based on the conducted risk assessment. 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 were prioritized using the process described in Section 7.2.1 of the Base Plan. Timeline and project cost definitions are noted in Section 7.3.2 of the Base Plan. Actions with an asterisk (*) are those that mitigate losses to future development.



A special note regarding a column in the table: The 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Dense Fog/Freeze.

**Table K-18 Heritage Ranch CSD's Mitigation Action Plan**

ID	HAZARD(S) MITIGATED	DESCRIPTION/BACKGROUND /BENEFITS	LEAD AGENCY & PARTNERS	COST ESTIMATE & POTENTIAL FUNDING	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
HR. 1	Dam Incidents; Drought and Water Shortage; Flooding	Continue to engage with San Luis Obispo County Flood Control & Water Conservation District, and Monterey County Water Resources Agency to operate the Dam in a manner more conducive to preventing these hazards.	HRCSD Administration; SLOCFCWCD ; MCWRA	Little to no cost. Staff Time, General Fund	Low	1-2 years	Annual Implementation
HR. 2	Earthquake	Increase risk awareness of the potential impacts of earthquakes to water and wastewater systems and conduct outreach to residents of same; Continue to partner with the Heritage Ranch Owners Association and their Emergency Services Committee on emergency planning.	HR Owners Association, HRCSD Administration	Little to no cost. Staff Time, General Fund	Low	1-2 years	Annual Implementation
HR. 3	Wildfire	Continue wildfire public education and awareness programs to advise residents of risk to life, health and safety; include information on defensible space and safe evacuation; Continue to partner with the Heritage Ranch Owners Association and their Emergency Services Committee on emergency planning.	HR Owners Association, HRCSD Administration	Little to no cost. Staff Time, General Fund	Low	1-2 years	Annual Implementation



ID	HAZARD(S) MITIGATED	DESCRIPTION/BACKGROUND /BENEFITS	LEAD AGENCY & PARTNERS	COST ESTIMATE & POTENTIAL FUNDING	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
HR. 4	Adverse Weather: Thunderstorm, Adverse Weather: High Wind, Adverse Weather: Extreme Heat	Consider support for communication towers and other communication infrastructure to be built within the HRCSD Boundary/property to provide expanded warning capabilities related to adverse weather.	Communication companies, HRCSD Administration	Little to no cost. Staff Time, General Fund; Communication company budgets	Low	1-5 years	New in 2025
HR. 5	Adverse Weather: Extreme Heat; Drought and Water Shortage	Continue to review and analyze water quality and availability and consider additional vertical intake facilities or similar projects to mitigate low flows from the Dam during outages and/or drought.	HRCSD Operations	Little to no cost. Staff Time, General Fund	Low	1-5 years	New in 2025
HR. 6	Landslide and Debris Flow; Wildfire	Continue to review and analyze if additional projects could improve raw water quality if debris flow occurs within Nacimiento Reservoir and River like it did after the Chimney Fire.	HRCSD Operations , RCDs, CalFire	Little to no cost. Staff Time, General Fund	Low	1-5 years	New in 2025
HR. 7	Flooding; Dam Incident	Continue to review and analyze if additional vertical intake facilities or similar projects to mitigate high flows from the Dam that have historically damaged or destroyed the current gallery well system.	HRCSD Operations	Little to no cost. Staff Time, General Fund	Low	1-5 years	New in 2025



K.6 Implementation and Maintenance

Moving forward, the Heritage Ranch Community Services 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 7 in the Base Plan: Implementation and Monitoring.

K.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 HRCSD to help inform updates of the Heritage Ranch CSD's existing plans (e.g. 2014 Village Plan) as well as in the development of additional local plans, programs, regulations, and policies. Understanding the hazards which pose a risk and the specific vulnerabilities to the HRCSD and its sphere of influence will help in future capital improvement planning and development for the HRCSD. 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 Heritage Ranch Community Services District area.

As noted in Section 8 Implementation and Monitoring, the Planning Team representative/s from the Heritage Ranch CSD 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.

K.6.2 Monitoring, Evaluation and Updating the Plan

The Heritage Ranch Community Services 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 HRCSD General Manager will be responsible for representing the HRCSD in related County Hazard Mitigation Plan meetings or events, and for coordination with County staff and departments during plan updates. The Heritage Ranch CSD 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 L Los Osos Community Services District

L.1 District Profile

L.1.1 Mitigation Planning History and 2025 Process

This annex was updated in 2025 to builds upon the previous version created for the 2019 San Luis Obispo County Hazard Mitigation Plan (HMP) update. This jurisdictional annex also builds upon the previous version of the Local HMP for the Los Osos Community Services District (CSD) approved by FEMA in August 2005. The 2019 HMP was not formally integrated into any planning mechanisms as nothing has been formally adopted since the last plan update. However, the CSD is planning on leveraging the information from the hazard identification and risk assessment from the current update into the next update of their Emergency Response Plan. Since the last plan update, one notable change in priority has been an increased emphasis on stormwater drainage improvements as a result of flooding in 2023.

The General Manager of the Los Osos Community Services District was the representative on the county HMPC and took the lead for developing this annex in coordination with the Los Osos Community Services District Local Planning Team (LPT). The LPT will be responsible for implementation and maintenance of the plan. Table L-1 summarizes the District's planning team for the plan revision process, and Table L-2 summarizes various stakeholder groups, neighboring communities, and local agencies which supported or coordinated on this HMP update.

Table L-1 Los Osos CSD Hazard Mitigation Plan Planning Team

DEPARTMENT	TITLE
Administration	General Manager
Administration	Admin Services Mgr.
Utilities	Utilities System Manager
Fire	Battalion Chief

Table L-2 Los Osos CSD Stakeholder Groups, Neighboring Communities, and Local Agencies

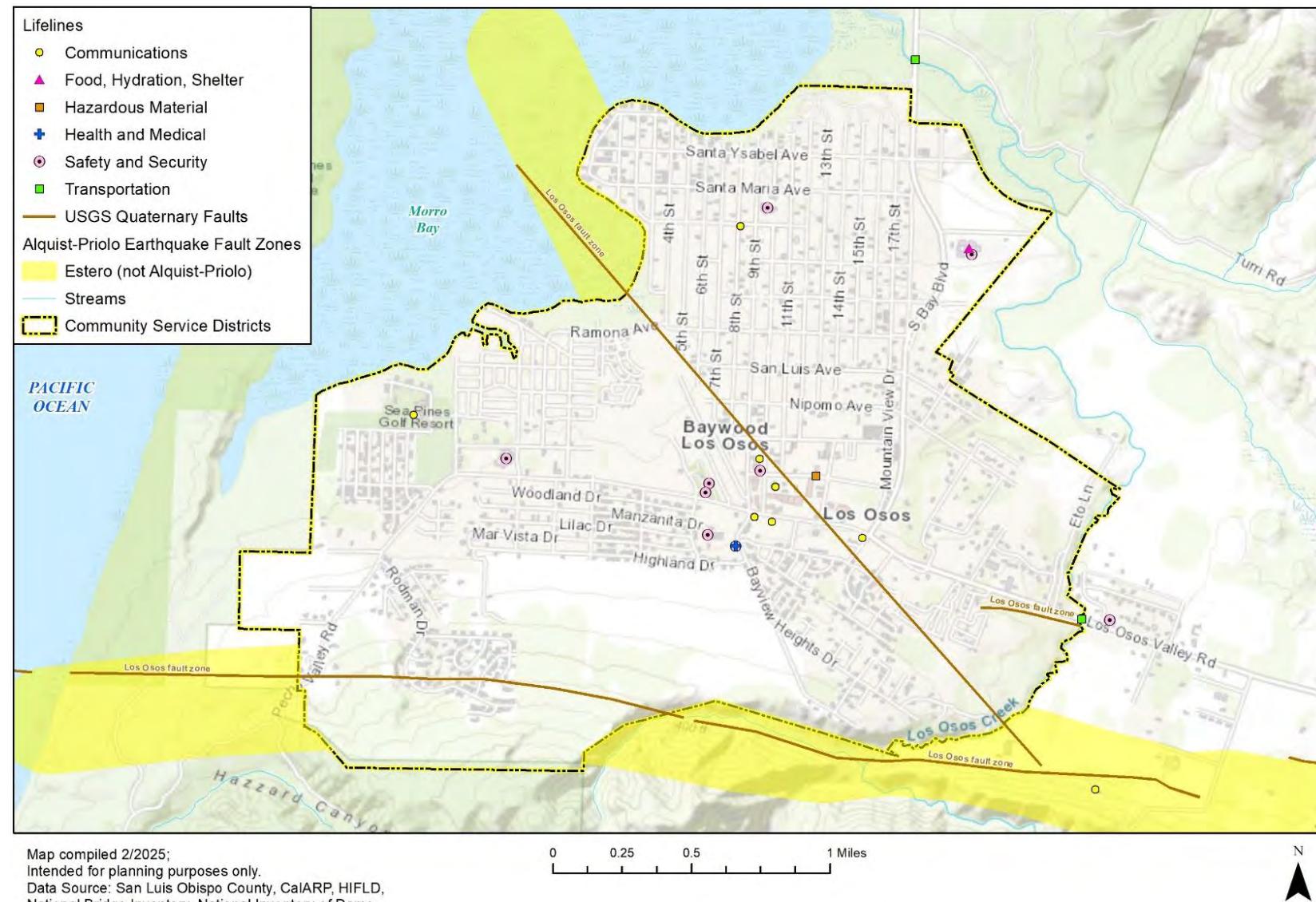
STAKEHOLDER CATEGORY	ORGANIZATION
Agencies involved in hazard mitigation activities	SLO County Fire
Agencies that have the authority to regulate development	SLO County Planning & Building
Neighboring communities	City of Morro Bay
Representatives of business, academia, and other private orgs	Los Osos/Baywood Park Chamber of Commerce
Representatives supporting underserved communities	People Helping People

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, as well as how the public was involved during the 2025 update.

Figure L-1 below shows the Los Osos planning area.



Figure L-1 Los Osos Community Service District





L.1.1 District Overview

The Los Osos Community Services District (District) is located south of the City of Morro Bay and west of the City of San Luis Obispo. The District provides multiple services to the unincorporated coastal area including water, fire protection services among other services. The Morro Bay Estuary and Morro Bay State Park border the District on the northwest, while the Los Osos Creek is on the eastern border of the District and the prominent topographic feature, Irish Hills, as well as Montano de Oro State Park lies to the south and southwest.

The District was created on November 3, 1998, replacing the old County Service Area 9 with Los Osos' first public agency governed by community residents. District services include fire protection and emergency response, storm water drainage management, solid waste management, water supply for the Baywood area, parks and recreation, and street lighting.

The Los Osos Community Services District is governed by an elected Board of Directors with the authority to make decisions about various public utilities and services. The Board's primary responsibilities are water, solid waste management, drainage, and emergency services. The Board meets on the first Thursday of each month. All Board Meetings are public meetings, and any member of the public can speak to the Board regarding any matter of District authority during the public comment period.

The Los Osos Community Services District has established four advisory committees (Emergency Services Advisory Committee, Finance, Water Utilities and Parks and Recreation) to advise the Board on various aspects of its operations. The Board may create standing committees at its discretion.

Community service districts are prohibited by law from engaging in land use planning. Thus, a volunteer group, the Los Osos Community Advisory Council (LOCAC) has been formed to advise the San Luis Obispo County Board of Supervisors on land use planning, parks, transportation, and other issues that affect the community of Los Osos. LOCAC is an advisory council only; it does not have the authority to make decisions.

L.1.2 Development Trends

According to the planning team, there has been limited new development in the community since the last plan update, mostly individual single-family homes; this has not notably increased or decreased hazard vulnerability. As mentioned previously, the community is largely built out and bounded on all sides by geographic features and the Los Osos Oaks State Natural Reserve, leaving very limited undeveloped areas within the district. New development will mostly occur on infill lots distributed throughout the community. Because of these factors, the district's net vulnerability has not increased or decreased due to changes in development since the previous plan was approved for all hazards identified in Section L.3.3.

The U.S. Census Bureau estimated the Los Osos Census Designated Place's (CDP) 2023 population as 15,048, a decrease from 16,292 in 2018; this represents a 7.6 percent decrease in five years. Table L-3 shows an overview of key social and demographic characteristics of the CDP taken from the U.S. Census Bureau's American Community Survey.

Table L-3 Los Osos CDP Demographic and Social Characteristics, 2018-2023

LOS OSOS CDP	2018	2023	% CHANGE
Population	16,292	15,048	-7.6%
Median Age	47.5	47.3	-.4%
Total Housing Units	6,829	6,571	-3.8%



LOS OSOS CDP	2018	2023	% CHANGE
Housing Occupancy Rate	95%	94.6%	-.4%
% of Housing Units with no Vehicles Available	1.1%	2.1%	+90.9%
Median Home Value	\$498,200	\$728,000	+46.1%
Unemployment	2.4%	3%	+25%
Mean Travel Time to Work (minutes)	23.2	20.9	-9.9%
Median Household Income	\$97,004	\$115,000	+18.6%
Per Capita Income dp03	\$39,810	\$51,593	+29.6%
% of Individuals Below Poverty Level	10.3%	8.4%	-18.4%
# of Households	6,482	6,217	-4.1%
Average Household Size	2.49	2.40	+3.6%
% of Population Over 25 with High School Diploma	92.7%	94.2%	+1.6%
% of Population Over 25 with Bachelor's Degree or Higher	41.7%	31%	-25.7%
% with Disability	14.7%	13.4%	-8.8%

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

Note: Data is for the Los Osos Census Designated Place (CDP) which may not have the same boundaries as the Cambria Community Service District.

The following tables show how the Los Osos CDP's labor force breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey. The industries with the most employees are educational services, health care and social assistance (21.8%) as shown below in Table L-4. The most common occupations in Cambria are those in management, business, science, and the arts (43.63%) as shown in Table L-3.

Table L-4 Los Osos CPD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	%
Population (2017)	12,461	
In Labor Force	7,602	61%
Agriculture, forestry, fishing and hunting, and mining	170	2.4%
Armed Forces	0	0%
Construction	841	11.6%
Manufacturing	377	5.2%
Wholesale trade	26	.4%
Retail trade	673	9.3%
Transportation and warehousing, and utilities	377	5.2%
Information	184	2.5%
Finance and insurance, and real estate and rental and leasing	281	3.9%
Professional, scientific, and management, and administrative and waste management services	732	10.1%
Educational services, health care and social assistance	1,578	21.8%
Arts, entertainment, recreation, and accommodation and food services	979	13.5%
Other services, except public administration	587	8.1%
Public administration	429	5.9%
Unemployed	368	3%

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

**Table L-5 Los Osos CPD Employment by Occupation (2023)**

OCCUPATION	# EMPLOYED	% EMPLOYED
Sales and Office Occupations	1,293	17.9%
Management, Business, Science, and Arts Occupations	3,153	43.63%
Service Occupations	1,653	22.9%
Production, Transportation, and Material Moving Occupations	540	7.5%
Natural Resources, Construction, and Maintenance Occupations	595	8.2%
Total	7,234	

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

Note: Data is for the Los Osos Census Designated Place (CDP) which may not have the same boundaries as the Cambria Community Service District

L.1.3 Other Community Planning Efforts

The coordination and synchronization of this plan 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, Los Osos and the Los Osos Community Services District are 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 Los Osos community that relate to hazards or hazard mitigation, as summarized in the table below. Information on how they informed the update is noted and incorporated where applicable.

Table L-6 Summary of Review of Key Plans, Studies and Reports

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Los Osos Community Plan (December, 2024)	Incorporated background information on the community and CSD.
2019 SLO County HMP - Los Osos Annex	Informed assets at risk, past hazard events, and background information on the District and the community.
Estero Area Plan (2009)	Informed natural assets section on the Sensitive Areas in the Los Osos community

In addition to the development standards within the Los Osos Community Plan, there are County planning mechanisms that regulate future and existing development within the Los Osos CSD planning area. Refer to Section L.4 Capability Assessment for more information on the plans, policies, regulations and staff that govern the Los Osos planning area.

L.2 Hazard Identification and Summary

The Los Osos CSD planning team identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and



significance specific to the Los Osos CSD (see Table L-7). There are no hazards that are unique to Los Osos.

Table L-7 Los Osos CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Dense Fog	Significant	Likely	Limited	Medium
Adverse Weather: High Wind and Tornado	Significant	Likely	Limited	Medium
Adverse Weather: Extreme Heat	Significant	Likely	Limited	Low
Coastal Storm/Coastal Erosion/Sea Level Rise	Significant	Likely	Limited	Low
Drought and Water Shortage	Significant	Likely	Limited	High
Earthquake	Extensive	Likely	Critical	High
Flood	Limited	Likely	Limited	Low
Tsunami	Significant	Occasional	Limited	Low
Wildfire	Significant	Likely	Limited	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 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			

L.3 Vulnerability Assessment

The intent of this section is to assess the Los Osos Community Services District's vulnerability separate 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 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 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. In addition, the Los Osos CSD planning team members were asked to share information on past hazard events that have affected the Community Services 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 (See Table L-7. 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 Los Osos CSD 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 a more detailed qualitative analysis with best available data.

L.3.1 Other Hazards

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

- Adverse weather: the sub-hazards of lightning, hail and freeze are not an issue due to coastal location
- Agricultural Pest Infestation and Disease
- Biological Agents (naturally occurring)
- Dam Incidents (no exposure to dam inundation zones)
- Landslides and Debris Flow (no mapped hazard areas)
- Subsidence
- Hazardous Materials

L.3.2 Assets at Risk

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.

L.3.2.1 Values at Risk

Table L-8 shows the total exposure of properties (e.g., the values at risk) broken down by property type for the Los Osos Community Services District.

Table L-8 Los Osos CSD Total Exposure by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Agricultural	1	\$8,766	\$8,766	\$17,532
Commercial	120	\$62,521,031	\$62,521,031	\$125,042,062
Exempt	18	\$4,952,566	\$4,952,566	\$9,905,132
Industrial	9	\$12,613,337	\$18,920,006	\$31,533,343
Mixed Use	55	\$10,111,144	\$10,111,144	\$20,222,288
Mobile Home	9	\$12,686,166	\$6,343,083	\$19,029,249



PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Multi-Family Residential	185	\$65,126,126	\$32,563,063	\$97,689,189
Residential	4,903	\$1,205,322,760	\$602,661,380	\$1,807,984,140
Vacant Improved	24	\$5,916,725	\$5,916,725	\$11,833,450
Total	5,324	\$1,379,258,621	\$743,997,764	\$2,123,256,385

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis

L.3.2.2 Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation.

An inventory of critical facilities in the District based on County GIS data is provided in Table L-9 and illustrated in Figure L-1 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.

Table L-9 Los Osos CSD Critical Facility Assets Summary by FEMA Lifeline

FEMA LIFELINE CATEGORY	COUNTS
Communications	7
Energy	-
Food, Hydration, Shelter	1
Hazardous Material	1
Health and Medical	1
Safety and Security	8
Transportation	-
Water Systems	-
Total	18

Source: San Luis Obispo County, CalARP, HIFLD, National Bridge Inventory, National Inventory of Dams, FCWCD, WSP Analysis

L.3.2.3 Essential Facilities

Essential facilities as identified by the Los Osos CSD Planning Team are as follows:

- Sheriff Sub-Station – 2099 10th Street
- South Bay Fire Department – 2315 Bayview Heights
- Water Treatment Facilities
- Water Tanks
- Water Pumping Facilities
- Groundwater Supply Sites

L.3.2.4 Transportation and Lifeline Facilities

The Los Osos CSD is situated in proximity to the regional transportation routes of Highway 101 and Highway 1 via Los Osos Valley Road and South Bay Boulevard. These are also the main arterial roads to access the planning area. The lack of alternatives transportation routes during an evacuation was noted as a significant concern for many residents in the Los Osos Community. The District's lifeline facilities include those listed in the essential facilities above.

L.3.2.5 Historic and Cultural Resources

No historic or cultural resources have been identified in the Los Osos CSD.



L.3.2.6 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. 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. The Los Osos CSD Planning Team identified the following significant natural assets:

- Los Osos Oak State Reserve
- Baywood Park
- Audubon Overlook
- Elfin Forest
- Sweet Springs Nature Preserve
- Montana De Oro State Park
- Los Osos Community Park
- Los Osos School 1872
- Morro Bay Estuary

Some of natural assets listed above are also areas designed in the Estero Area Plan (2009) combining designations for Sensitive Reserve Areas, which apply to the protection of special resources in the Los Osos community and its vicinity:

- Los Osos Oaks State Reserve (SRA) - The Los Osos Forest is an 86-acre state park reserve containing outstanding examples of California pygmy oaks--stunted coast live oaks, growing in a stabilized dune area. Other oaks are also present, making this area an outstanding example of an oak woodland. The forest also includes a strip of open space preserved by the developer of Tract 527, but it is not open to public access.
- Los Osos Creek (SRA) - The lower eight miles of the creek are an anadromous fish stream (primarily steelhead), and adjacent riparian areas are rich in wildlife. Environmental concerns include contamination and excessive siltation of both the creek and the bay by development or other adverse uses occurring too close to the creek and its tributaries.
- Eto and Warden Lakes (SRA) - These are two of the few remaining isolated freshwater marshes in the county. Both lie within the Los Osos Creek drainage. The freshwater marshes, along with the associated riparian habitat, are important sites for migratory birds.
- Hazard Canyon and Vicinity (SRA) - The threatened Morro manzanita occurs only in the area between Baywood Park and Hazard Canyon. In addition, two of the six known stands of the endangered Indian Knob Mountain balm occur in Hazard Canyon. Many other endemic plant species are found in the dunes near the mouth of the canyon. This area is an excellent example of the successive stages of dune stabilization. Much of this area is within Montaña de Oro State Park.
- Montaña de Oro Grassland (SRA) - The marine terrace between Islay and Coon Creeks is a mosaic of the *Stipa* grassland community and the northern coastal scrub and coastal sage scrub. The terrace also supports numerous wildflowers.
- Coon Creek (SRA). Several natural plant communities occur in this area. The most interesting is the Bishop pine forest located on steep slopes just outside Montaña de Oro State Park. This is a large conifer forest where specimens of the Bishop pine may have been first collected scientifically and used to describe the species. Coast live oak is intermixed with the conifer forest. The county's only native population of *Ceanothus griseus* is found in this area (Source: California Native Plant Society).



L.3.2.7 Economic Assets

Los Osos is a residential area, and there is very little commercial development.

L.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 input) it differs from that of the overall County.

Table L- above shows Los Osos' exposure to hazards in terms of number and value of structures. San Luis Obispo County parcel and assessor data was used to calculate the improved value of parcels. The most vulnerable structures are unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building codes. Impacts of past events and vulnerability to specific hazards are further discussed below. (See Section 5 of the Base Plan for more detailed information about these hazards and their impacts on San Luis Obispo County as a whole.)

L.3.3.1 Adverse Weather: Thunderstorms/ Heavy Rain/ Dense Fog

Adverse weather in the Los Osos Community Services District includes thunderstorms, heavy rain, and dense fog. The overall significance rating for Los Osos is **Medium**. The entire property and facility inventory, as well as the population, of the Los Osos CSD is exposed to the impacts of thunderstorm/heavy rain/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. Heavy rainfall events affect the District annually and the community's proximity to the Pacific Ocean tends to exaggerate adverse weather compared to inland communities. The district receives approximately 17 inches of precipitation annually. Combined with soil conditions and the presence of shallow-rooted Eucalyptus trees, heavy rains and moderate winds cause numerous tree-toppling events each year. Downed trees knock down power and communications lines, bringing disruptions lasting from a few hours to days in some locales in the District. The tables below show key climate variables such as extreme temperatures, precipitation totals, and the frequency of specific weather events.

Note that Morro Bay Fire Department and the Los Osos Landfill weather stations are the nearest official reporting site to Los Osos. Refer to Section 5 of the Base Plan for information on past adverse weather events in San Luis Obispo County.

Table L-10 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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 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 L-11 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

L.3.3.2 Adverse Weather: High Wind and Tornado

Los Osos CSD overall significance rating for high wind and tornadoes is **medium**. The entire property and facility inventory, as well as the population, of the Los Osos CSD is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. While the region typically experiences a mild coastal climate, certain factors elevate its vulnerability to these hazards. High wind events in Los Osos 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.

Tornadoes are rare in San Luis Obispo County; however, Los Osos experienced a notable event on February 7, 2024, when an EF1 tornado touched down in the area. The tornado had estimated peak winds of 95 mph, a path length of 5 miles, and a maximum width of 50 yards. This event was significant because it marked the first tornado in the county since 2004. The combination of occasional high wind events and the rare but impactful tornado occurrence contributes to the medium hazard rating in Los Osos CSD.

L.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for the Los Osos CSD. The entire property and facility inventory, as well as the population, of the Los Osos CSD is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean maximum fall temperature for the Morro Bay Fire Department, the closest NOAA weather station to the CSD, is 68.3°F; however, temperatures up to 106°F have been recorded (see Table L-10). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

High temperatures lead to increased water demand for irrigation and cooling, which can strain pumping systems, reduce well yields, and potentially degrade water quality through reduced dilution capacity and bacterial contamination. Additionally, sustained heat can overheat pumps and increase the likelihood of equipment failures. Field staff working outdoors also face heat-related illness, which can lead to reduced staffing and slower response times.

Emergency services face greater demand during heat waves, as the risk of wildfires intensifies and heat-related medical emergencies become more frequent. These conditions can place additional pressure on the CSD's contracted fire and EMS providers. Solid waste operations can also be impacted, with sanitation workers exposed to higher risk and waste decomposing more quickly which can result in sanitation issues. Parks and recreation assets may also suffer



from stressed vegetation and reduced public use. Power outages caused by heat-induced grid strain can disrupt nearly all services.

L.3.3.4 Coastal Storm/Coastal Erosion/Sea Level Rise

Coastal storm is a **low** significance hazard for the Los Osos CSD. The District is located in a coastal lowland area adjacent to Morro Bay, with several neighborhoods, roadways, and utility infrastructure in proximity to estuarine and oceanfront zones potentially vulnerable to sea level rise. While direct inundation under current sea level conditions ranks this hazard category as low significance, the presence of back bay waters, tidal marshlands, and episodic coastal flooding events presents increasing risk over time.

The combination of storm surge, king tides, and long-term sea level rise may gradually elevate flood risks, especially in lower-elevation areas near Cuesta-by-the-Sea and along the tidal edges of Los Osos Valley. The District continues to monitor shoreline and drainage dynamics and will rely on regional sea level rise vulnerability assessments and planning efforts by San Luis Obispo County, State Parks, and other partners to guide future adaptation strategies and infrastructure investments. Further details, including methodology and modeling assumptions, are provided in the Base Plan, Section 5.3.4, Coastal Storm, Coastal Erosion, and Sea Level Rise.

Values at Risk

A sea level rise risk assessment was completed to evaluate potential impacts on coastal jurisdictions, critical facilities, and flood hazards. Table L-12 and Table L-13 summarize the properties projected to be at risk from sea level rise alone and from sea level rise combined with a 1% annual chance flood event. The areas of potential inundation are illustrated in Figure L-2 and Figure L-3, respectively. No critical facilities were identified as being at risk under the sea level rise scenarios assessed. Additional details regarding the modeling assumptions, scenarios, and data sources are provided in Section 5.3.4 of the Base Plan.

Table L-12 Los Osos Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Commercial	1	4	16	6	8	19
Exempt	1	1	1	1	1	1
Mixed Use	-	-	4	1	1	7
Mobile/Manufactured Homes	-	-	1	-	-	1
Multi-Family Residential	-	-	4	-	-	10
Residential	4	25	225	45	89	292
Vacant Improved	-	-	2	1	2	2
Total	6	30	253	54	101	332

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Table L-13 Los Osos Improved Values of Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Commercial	\$109,242	\$2,655,266	\$8,182,517	\$4,434,554	\$4,789,794	\$8,599,580
Exempt	\$3,444	\$3,444	\$3,444	\$3,444	\$3,444	\$3,444
Mixed Use	-	-	\$1,067,127	\$637,500	\$637,500	\$1,266,258



PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/ 1% FLOOD	75-CM SLR W/ 1% FLOOD	300-CM SLR W/ 1% FLOOD
Mobile/Ma nufactured Homes	-	-	\$69,324	-	-	\$69,324
Multi-Family Residential	-	-	\$1,476,959	-	-	\$3,926,280
Residential	\$1,806,596	\$7,464,643	\$58,936,259	\$13,233,820	\$23,785,693	\$74,642,803
Vacant Improved	-	-	\$1,103,604	\$11,604	\$1,103,604	\$1,103,604
Total	\$1,919,282	\$10,123,353	\$70,839,234	\$18,320,922	\$30,320,035	\$89,611,293

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Sea level rise modeling for Los Osos shows limited exposure under lower sea level rise scenarios, with risk increasing significantly at higher levels. Under the 25-centimeter scenario, six properties are projected to be inundated, including commercial and residential parcels. By the 75-centimeter scenario, 30 properties are at risk, primarily residential. Under the 300-centimeter sea level rise scenario, exposure expands to 253 parcels, including a substantial number of residential, commercial, mixed-use, and multi-family properties.

When sea level rise is combined with a FEMA 1% annual chance flood event, the number of affected properties increases across all scenarios. Under the combined 300-centimeter scenario, 332 properties are at risk, including 292 residential parcels and 19 commercial parcels, with additional exposure to mixed-use, mobile home, multi-family residential, exempt, and vacant improved parcels. Residential parcels represent the majority of exposure across all scenarios.

Under the 25-centimeter sea level rise scenario, the total improved value of properties at risk is approximately \$1.9 million. This increases to \$10.1 million under the 75-centimeter scenario and to approximately \$70.8 million under the 300-centimeter scenario. Residential properties make up the largest share of value at risk, particularly under the higher sea level rise conditions.

When sea level rise is combined with a FEMA 1% annual chance flood event, the total improved value at risk increases to approximately \$18.3 million under the 25-centimeter scenario, \$30.3 million under the 75-centimeter scenario, and \$89.6 million under the 300-centimeter scenario. Residential properties again represent the majority of total value exposed, followed by commercial, multi-family residential, and mixed-use parcels.



Figure L-2 Los Osos Sea Level Rise Scenario Analysis: Tidal Inundation Only

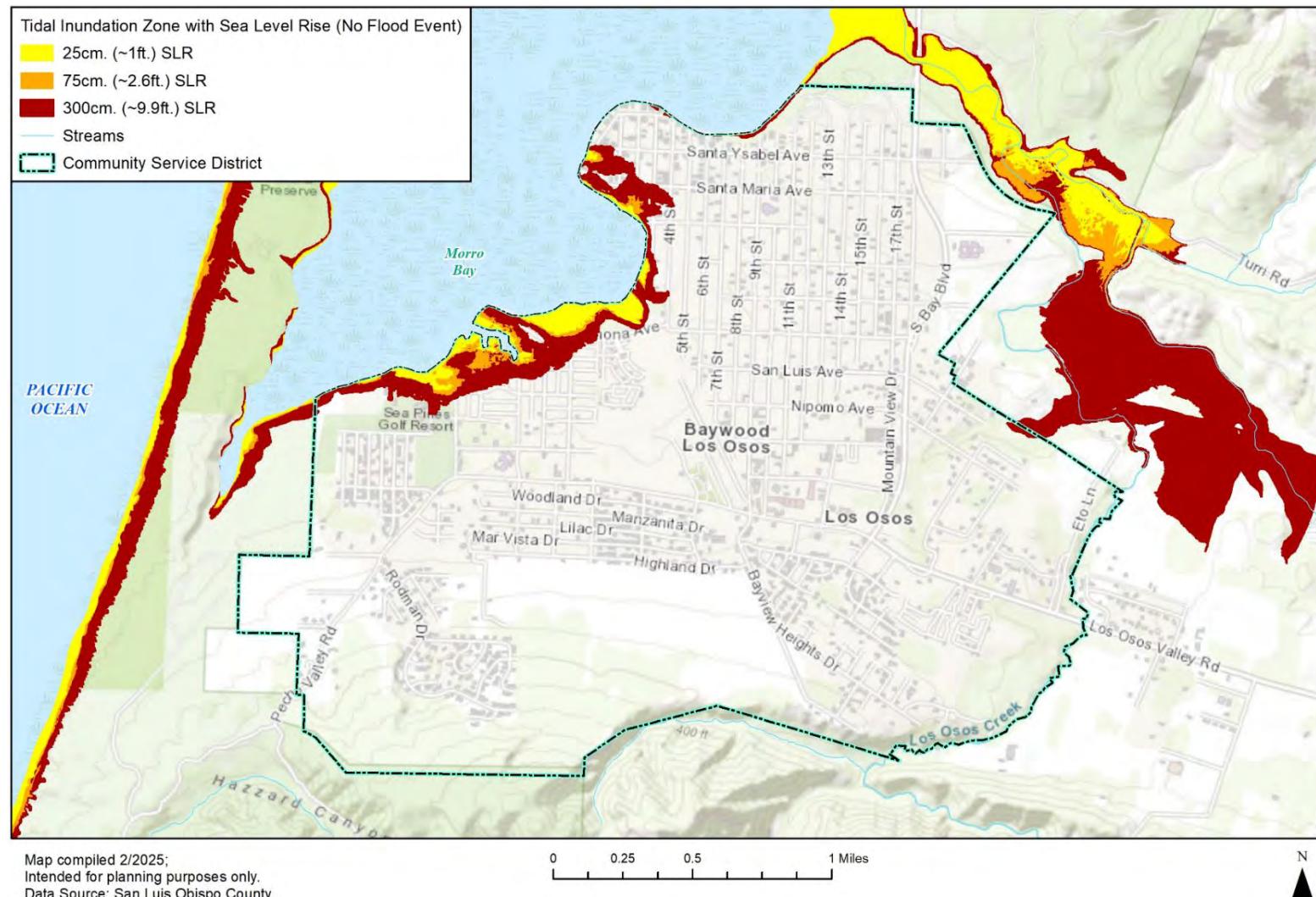
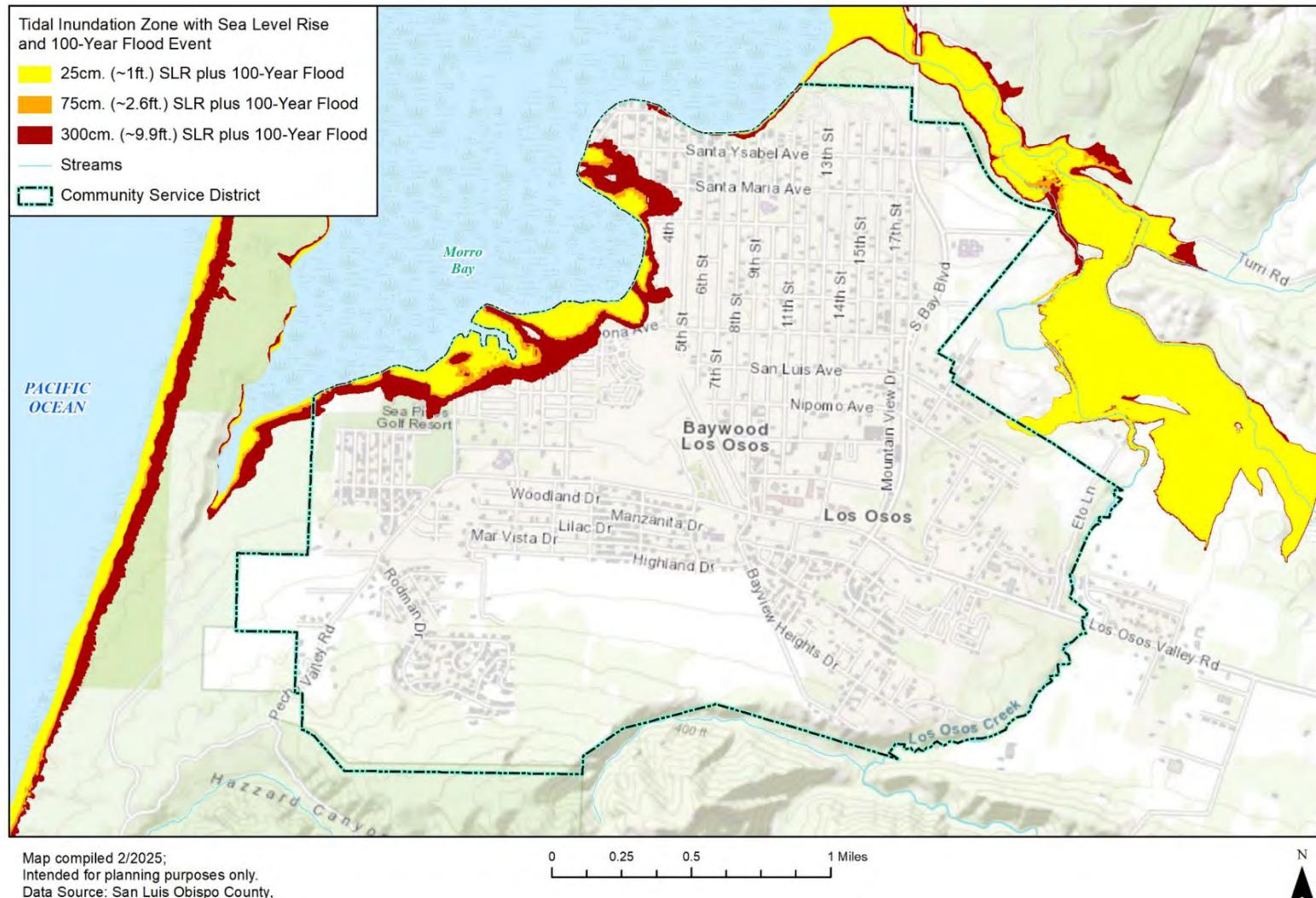




Figure L-3 Los Osos Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood





Populations at Risk

Table L-14 provides information on Los Osos CSD population exposed to sea level rise scenario hazards with and without the 1% annual chance flood, below.

Table L-14 Los Osos CSD Population Exposed to Sea Level Rise Scenario Hazards

CSD	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/ 1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Los Osos CSD	10	62	568	111	220	748
Total	10	62	568	111	220	748

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

As sea level rise projections increase, so does the potential population exposure within the Los Osos CSD. Under the 25-centimeter sea level rise scenario, approximately 10 residents are exposed, with that number rising to 62 under the 75-centimeter scenario. At 300 centimeters of sea level rise, the population exposed increases significantly to 568. When storm surge and 1% annual chance flooding are combined with these sea level rise scenarios, the exposure becomes more severe, with 111 people impacted at 25 cm, 220 at 75 cm, and up to 748 residents potentially exposed under the 300 cm scenario. This escalating pattern highlights the growing vulnerability of low-lying neighborhoods, particularly near coastal and estuarine areas, and underscores the importance of proactive adaptation and planning.

L.3.3.5 Drought and Water Shortage

Drought is considered to be of **high** significance for the Los Osos CSD. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts do not vary in Los Osos significantly. The Los Osos CSD is one of the three water purveyors in the Los Osos community. The District supplies water for domestic service and fire protection. The CSD's service area encompasses 633 acres of predominantly residential land uses. The CSD utility department is responsible for maintaining and operating their water distribution system, which includes six groundwater supply wells, over 27 miles of water main lines, three water storage tanks, approximately 2,780 water service lines and meters, 167 fire hydrants, four submersible pump stations, and five drainage basins. The District has a daily production capacity of approximately 1,580 gallons per minute when all wells are active.

The Los Osos Groundwater Basin is the only source of water for residential, commercial, institutional, and agricultural uses in the Los Osos community. In 2014, the basin was identified by the State as a high priority groundwater basin due to seawater intrusion and nitrate contamination, which required compliance with the Sustainable Groundwater Management Act (SGMA).

In 2019, the Department of Water Resources reclassified the Los Osos Basin as a very low-priority basin under SGMA. However, it remains designated as being in a state of critical overdraft due to ongoing seawater intrusion. Currently, Los Osos is under a building moratorium due to water supply limitations. The moratorium can only be lifted if key factors within the Basin Management Plan (such as seawater intrusion mitigation and sustainable yield) are met.

The 2023 Los Osos Basin Plan Groundwater Monitoring Program Annual report showed improvement in precipitation and groundwater conservation. Purveyor production (from Los Osos CSD, Golden State Water Company, and S&T Mutual Water Company) decreased by 3% from 2022, and total basin production declined by 18% due largely to reduced pumping from domestic, community, and agricultural wells. While above-average rainfall in 2023 improved



overall water availability, seawater intrusion advanced in some sections of the basin. Additionally, chloride levels worsened, while nitrate levels improved but remained above the target level.

While water levels are increasing, continued drought conditions in Los Osos may lead to increased pumping, leading to wells requiring rehabilitation and increasing maintenance costs. Aging or overused infrastructure may experience increased breakdowns or inefficiencies, requiring emergency repairs. To manage any future crisis, the CSD may need to invest in additional groundwater monitoring and testing, infrastructure upgrades or emergency well drilling, and public outreach and enforcement programs.

Drought impacts are wide-reaching and may be economic, environmental, and/or societal. The most significant impacts associated with drought in the planning area are those related to water intensive activities such as wildfire protection, jurisdictional usage, commerce, tourism and recreation. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding.

L.3.3.6 Earthquake

Earthquakes are considered to be of **High Significance** for the Los Osos CSD. Like all jurisdictions in the county, Los Osos is exposed to seismic hazards from movement along several regional faults and is at more or less the same level of risk for damage as other communities in San Luis Obispo County from ground shaking triggered by any earthquakes that impact the county. Previous iterations of the HMP have identified three fault zones (Los Osos, Edna and Indian Knob) as those most likely to cause impacts to the Los Osos Community Services District. The Los Osos fault poses the greatest risk to the CSD and its facilities. The fault is considered active and has the potential to generate a 6.8 magnitude earthquake. The San Simeon earthquake in 2003 which had impacts countywide caused significant damage to the Los Osos Community Services District's 16th Street North water storage tank. The tank was not anchored and endured what is referred to as "elephant foot" damage. The District repaired the tank with the assistance of FEMA and the California Office of Emergency Services (Cal OES). The improvements to the 16th Street tank secured the tank by anchoring it and repairing the lower shell where major damage had occurred. Other critical infrastructure, including the fire station, suffered damage that was repaired.

Los Osos Community Services District is located in a geologically complex and seismically active region that is subject to earthquakes and potentially strong ground shaking. Portions of the District are located on sand in-fill areas. These areas and those areas underlain by young, poorly consolidated, saturated granular alluvial sediments, would be most susceptible to the effects of liquefaction. These soil conditions are most frequently found in areas underlain by recent river and flood plain deposits, which have increased vulnerability to liquefaction when ground shaking occurs.

The following tables (Table L-15 and Table L-16) display the types and values of properties and the types of critical facilities located in low, moderate, or high liquefaction risk areas. Based on this analysis there are 5,321 properties exposed to liquefaction risk with a total value of over \$2.1 billion. Residential properties are the most vulnerable property type to liquefaction in Los Osos, with a combined total of 5,094 properties (including multi-family residential and mobile homes) with a total value of over \$1.9 billion.

It is important to note that the overwhelming majority of exposed properties are located in low-risk areas, 3,851 in total. However, analysis shows there are still 973 properties at moderate risk of liquefaction and 497 at high risk.

The following map depicts the areas of the Los Osos CSD that are at risk of liquefaction. The areas along the coastline to the District's east and north are at high risk of liquefaction, while



the eastern portion of the District's boundaries are designated as moderate risk of liquefaction, including Los Osos Valley Road, the only major road out of the Los Osos CSD limits.

**Table L-15 Los Osos CSD's Improved Properties Exposed to Liquefaction Potential by Property Type**

PROPERTY TYPE	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	STRUCTURE COUNT LOW	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	-	1	-	1	\$8,766	\$8,766	\$17,532	-
Commercial	14	72	34	120	\$62,521,031	\$62,521,031	\$125,042,062	-
Exempt	1	7	10	18	\$4,952,566	\$4,952,566	\$9,905,132	-
Industrial	2	7	-	9	\$12,613,337	\$18,920,006	\$31,533,343	-
Mixed Use	4	40	11	55	\$10,111,144	\$10,111,144	\$20,222,288	-
Mobile/Manufactured Homes	-	2	7	9	\$12,686,166	\$6,343,083	\$19,029,249	22
Multi-Family Residential	14	86	85	185	\$65,126,126	\$32,563,063	\$97,689,189	457
Residential	456	753	3,691	4,900	\$1,204,166,976	\$602,083,488	\$1,806,250,464	12,103
Vacant Improved	6	5	13	24	\$5,916,725	\$0	\$5,916,725	-
Total	497	973	3,851	5,321	\$1,378,102,837	\$737,503,147	\$2,115,605,984	12,582

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

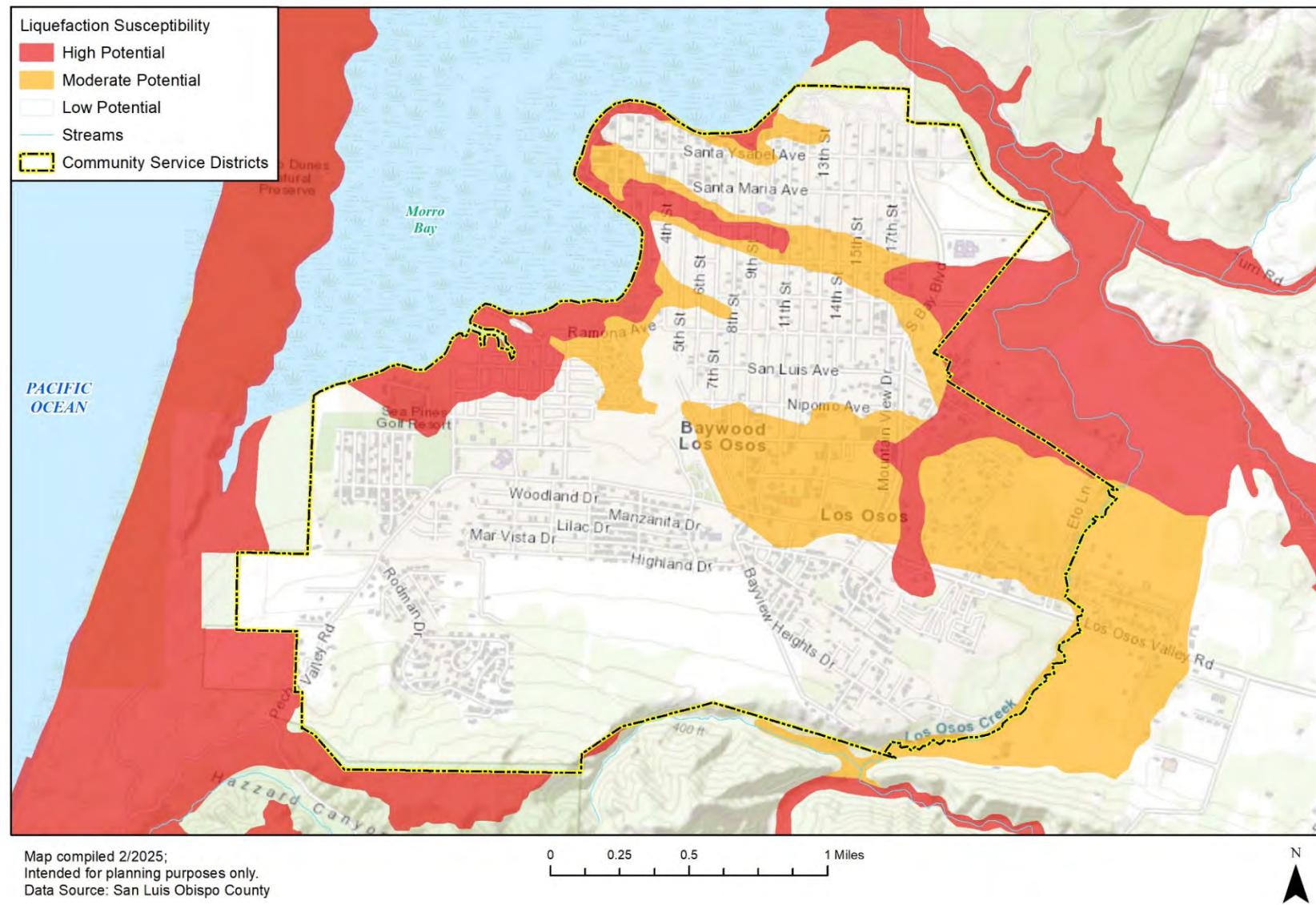
Table L-16 Critical Facility Assets Exposed to Liquefaction Susceptibility by FEMA Lifeline

LIQUEFACTION SUSCEPTIBILITY	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, & ESSENTIAL SERVICES	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
High Liquefaction Susceptibility	2	-	-	-	-	-	-	-	2
Medium Liquefaction Susceptibility	4	-	-	1	-	1	-	-	6
Low Liquefaction Susceptibility	1	-	1	-	1	7	-	-	10

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



Figure L-4 Los Osos Areas of Potential Liquefaction Risk





L.3.3.7 Flooding

The Los Osos CSD gave flood a **low** overall significance rating. The Los Osos CSD is exposed to localized flooding hazards, particularly during periods of heavy rainfall. The community's topography, limited drainage infrastructure, and proximity to coastal and estuarine environments increase its susceptibility to stormwater-related flooding. Flood hazards in Los Osos are generally associated with surface water runoff accumulation rather than large riverine systems.

The 2023 atmospheric river event impacted the Los Osos Community Service District and water basin levee. On January 9th, 2023, a significant flood event occurred when a stormwater retention basin failed in the Vista de Oro neighborhood. A secondary mudslide occurred on Vista Court, where hundreds of volunteers in Los Osos gathered to help residents dig out their homes. The failure resulted in critical infrastructure damage, road closures, and flooding of 19 single-family residences. Insured property losses were estimated at approximately \$4.5 million, with federal and state disaster relief funding requests submitted. While this event was severe, the likelihood of recurrence is considered low given planned improvements to stormwater infrastructure.

Outside of isolated incidents like the 2023 event, flood risks in Los Osos remain primarily related to localized flooding in low lying areas, minor stream overflows, and tidal influences. Future development is expected to remain limited to infill lots, minimizing the expansion of flood exposure. However, the community continues to work with regional agencies to assess vulnerabilities, including potential impacts from future climate change and sea level rise, particularly along key transportation corridors such as South Bay Boulevard and Los Osos Valley Road.

The Los Osos Community Services District is actively pursuing hazard mitigation efforts, including working with FEMA and Cal OES to secure funding for improvements to the failed stormwater basin. These actions are part of broader efforts to reduce future flood risk, protect critical facilities, and enhance community resilience. Figure L-5 shows the FEMA flood hazards with flooded structures for Los Osos. There are other areas of the District that have poor drainage that flood frequently during rain events that are not represented on the FEMA flood map. During the public comment period a group of residents noted a concern about homes in the 1400 block between 11th Street and 9th Street along El Moro in Los Osos.



Figure L-5 Los Osos CSD DWR & FEMA Flood Hazards with Flooded Structures

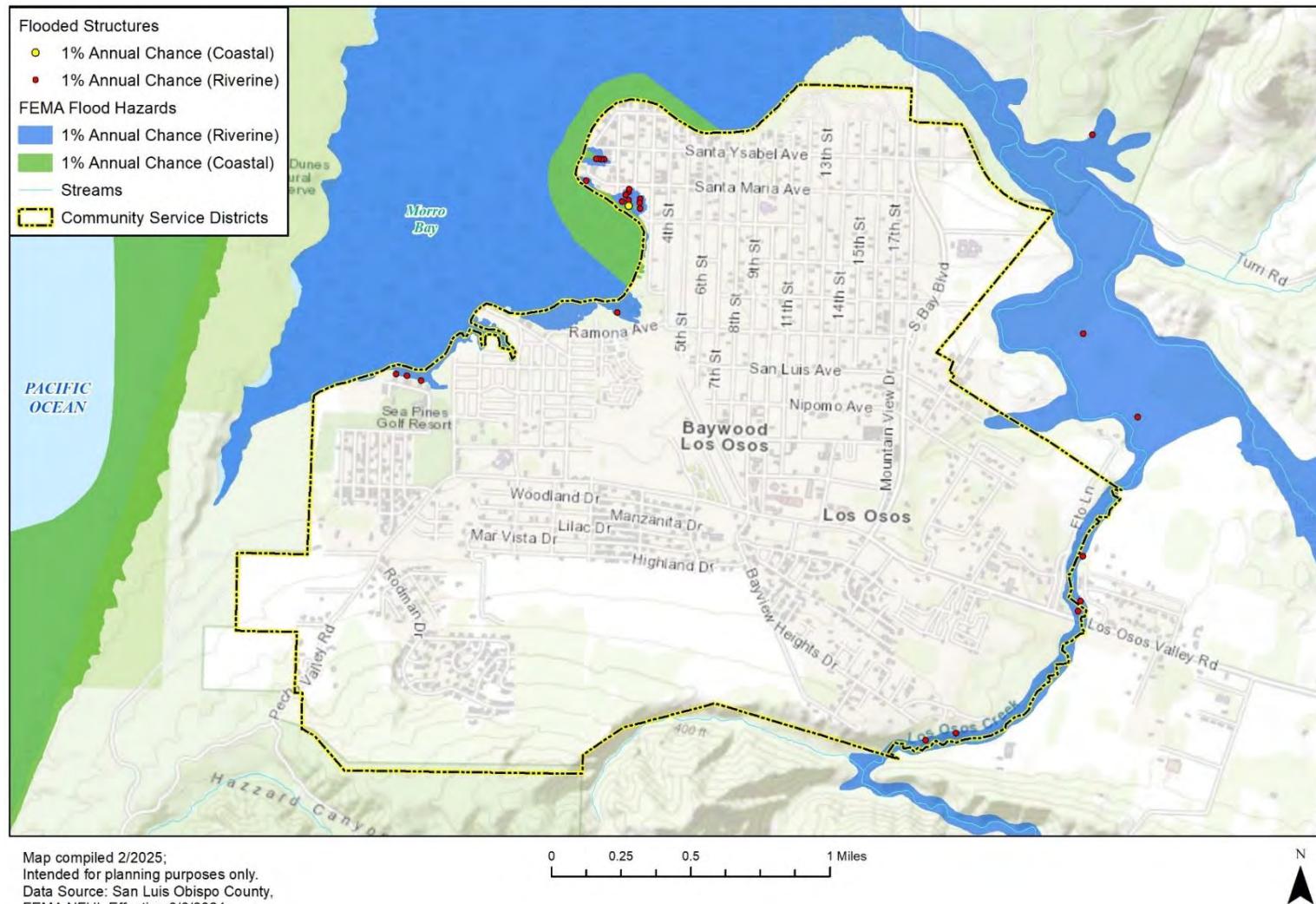




Table L-17 show improved properties and populations exposed to the 1% annual chance flood hazard.

Table L-17 Los Osos Improved Properties Exposed to FEMA 1% Flood Hazard by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	ESTIMATED LOSS
Commercial	6	\$4,467,293	\$4,467,293	\$8,934,586	\$2,233,647
Exempt	1	\$3,444	\$3,444	\$6,888	\$1,722
Mixed Use	1	\$637,500	\$637,500	\$1,275,000	\$318,750
Residential	11	\$3,420,183	\$1,710,092	\$5,130,275	\$1,282,569
Vacant Improved	1	\$1,092,000	-	\$1,092,000	\$273,000
Total	20	\$9,620,420	\$6,818,329	\$16,438,749	\$4,109,687

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

In Los Osos, a total of 20 improved properties are exposed to the FEMA 1% annual chance (100-year) flood hazards (note: there is no 0.2 annual chance flood zone mapped in the community). The total improved value of these properties is approximately \$9.6 million, with an additional estimated content value of \$6.8 million. Combined, the total exposure is approximately \$16.4 million. Properties at risk include six commercial structures, eleven residential structures, one mixed-use property, one exempt property, and one vacant improved parcel.

The estimated population exposed to flood hazards in Los Osos is approximately 27 residents. Residential structures account for the majority of this population at risk, with additional contributions from mixed-use properties and limited exposure associated with commercial and exempt parcels.

L.3.3.8 Tsunami

The Los Osos Community Service District has rated tsunami as **high** significance within its jurisdiction.

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 Los Osos, even if the fault rupture occurs thousands of miles away. Due to the majority of the district's development being located further inland and sheltered by the dunes of Morro Bay State Park, this area has relatively lower tsunami risk than other tsunami-exposed portions of the county. However, there are still vital portions of the district which are vulnerable, including Morro Beach State Park and development hugging the coastline along the southern reaches of Morro Bay. These areas are illustrated in Figure L-6 below.

The following table breaks down the tsunami risk for Los Osos CSD by property type.

Table L-18 Los Osos Improved Properties Exposed to Exposed to Tsunami Hazard Areas by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	12	\$6,268,530	\$6,268,530	\$12,537,060	-
Exempt	1	\$3,444	\$3,444	\$6,888	-
Mixed Use	2	\$845,580	\$845,580	\$1,691,160	-
Residential	183	\$57,452,255	\$28,726,128	\$86,178,383	452
Vacant Improved	3	\$1,185,425	\$0	\$1,185,425	-
Total	201	\$65,755,234	\$35,843,682	\$101,598,916	452

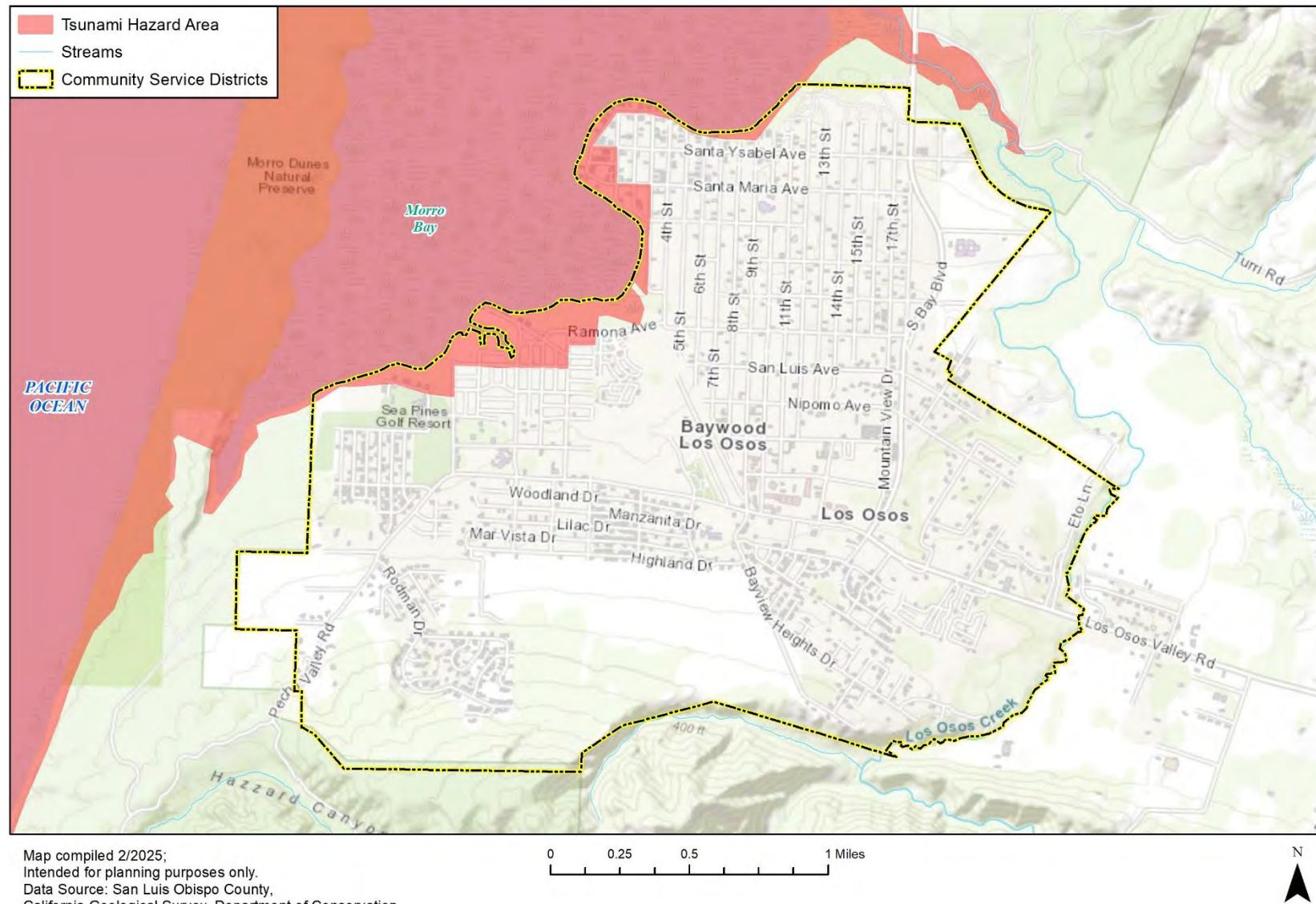
Source: San Luis Obispo Assessor Data November 15, 2024, California Geological Survey, Dept. of Conservation, WSP GIS Analysis



Based on this analysis there are 201 structures vulnerable to the impacts of a tsunami with a combined value of over \$101.6 million. Of the properties at risk the majority are residential properties, with 183 residential structures valued at approximately \$86.2 million. An estimated 452 people could be displaced by a tsunami. No Los Osos critical facilities/lifelines are located in inundation zones.



Figure L-6 Los Osos CSD Areas of Potential Tsunami Inundation



Map compiled 2/2025;

Intended for planning purposes only.

Data Source: San Luis Obispo County,

California Geological Survey, Department of Conservation



L.3.3.9 Wildfire

The Los Osos Community Service District has rated wildfire as **high** significance within its jurisdiction.

The climate in Los Osos Community Services District planning area is generally referred to as Mediterranean with warm dry summers and relatively cool, moderately wet winters. Rainfall throughout the District occurs primarily between November and April, and about 15 inches per year. Because summers are generally warm and dry, the risk of wildfires is highest in late summer and early fall. Fog and cool weather that are common in the coastal regions help to maintain moisture levels in vegetation along the coast, which helps to minimize fire risk. Other factors such as wind, topography and overgrown vegetation may counteract the fog and cool weather climate in the planning area and increase in the risk of ignition. Residential development is intermixed with native vegetation which results in a high-value, high-risk area.

Table L-19 shows critical facilities in Los Osos CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to safety and security. The table below shows that there is a total of nine (9) critical facilities exposed to fire hazard severity zones, three (3) of which fall in the very high fire severity zone rating.

Table L-19 Los Osos CSD Critical Facility Assets Exposed to Fire Hazard Severity Zones

FIRE HAZARD SEVERITY ZONE	COMMUNICATIONS	ENERGY	FOOD HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Very High	-	-	-	-	1	2	-	-	3
High	2	-	-	-	-	-	-	-	2
Moderate	-	-	1	-	-	3	-	-	4
Total	2	0	1	0	1	5	0	0	9

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

Several areas of the Los Osos community are within the high to very high severity wildfire hazard zones. Analysis using GIS was used to create the following tables, which quantify the potential losses by wildfire severity zones and property type. Based on the analysis 1,927 properties are situated within wildfire hazard exposure zones ranging from moderate to very high risk. Of these, 1,326 properties are located in the Very High Fire Severity Zone, while 273 properties fall within the High Fire Severity Zone and 328 properties fall within the Moderate Fire Hazard Severity zone. Collectively, these properties represent a total assessed value of \$914,143,535 and impact approximately 4,616 residents across all fire hazard severity zones. Of those properties, 1,848 are residential properties with a combined value of \$842,526,921. In addition to the residential properties there is also a public school, Monarch Grove Elementary, located in the high wildfire hazard zone. Table L-20 shows the properties in the district exposed to Fire Hazard Severity Zones. Figure L-7 depicts the Fire Hazard Severity Zones in Los Osos CSD.



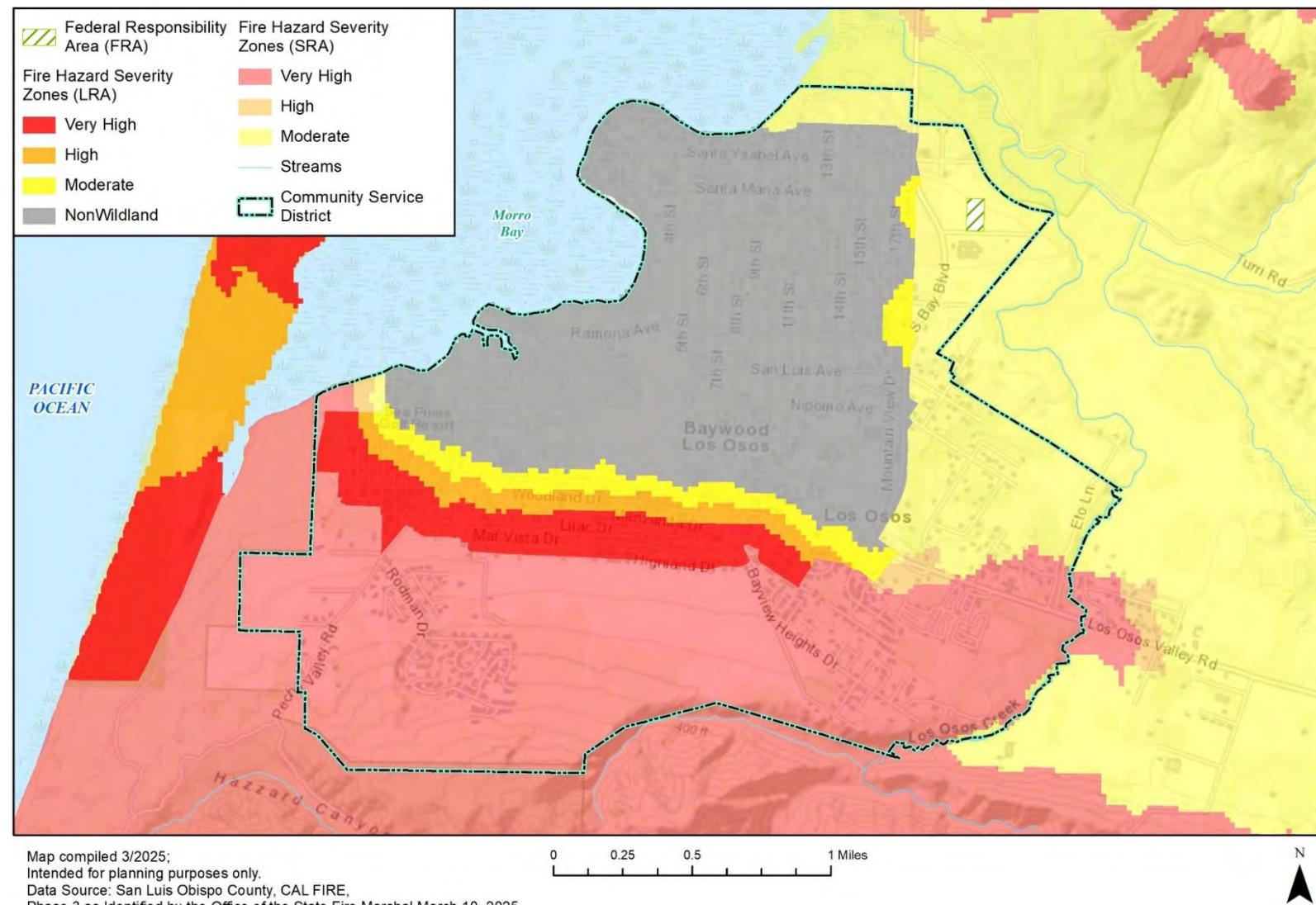
Table L-20 Los Osos CSDs Improved Properties Exposed to Fire Hazard Severity Zones

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	1	-	-	1	\$8,766	\$8,766	\$17,532	-
Commercial	11	15	16	42	\$19,472,302	\$19,472,302	\$38,944,604	-
Exempt	1	-	1	2	\$1,692,333	\$1,692,333	\$3,384,666	-
Mixed Use	-	-	1	1	\$497,196	\$497,196	\$994,392	-
Mobile/Manufactured Homes	5	1	-	6	\$11,938,636	\$5,969,318	\$17,907,954	15
Multi-Family Residential	3	7	5	15	\$4,551,584	\$2,275,792	\$6,827,376	37
Residential	1,296	250	302	1,848	\$561,684,614	\$280,842,307	\$842,526,921	4,565
Vacant Improved	9	-	3	12	\$3,540,090	\$0	\$3,540,090	-
Total	1,326	273	328	1,927	\$603,385,521	\$310,758,014	\$914,143,535	4,616

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis



Figure L-7 Los Osos CSD Fire Hazard Severity Zones





L.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 which of these policies or programs were 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 Los Osos CSD capabilities are summarized below.

L.4.1 Regulatory Mitigation Capabilities

Table L-21 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 Section 6 of the Base Plan for specific information related to the County's mitigation capabilities.

Table L-21 Los Osos CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	Yes	County, Estero Area Plan
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
Erosion or sediment control program	Yes	County
Stormwater management program	Yes	County
Site plan review requirements	Yes	County
Capital improvements plan	Yes	County
Economic development plan	Yes	County
Local emergency operations plan	Yes	County
Other special plans	No	
Flood Insurance Study or other engineering study for streams	Yes	County
Elevation certificates (for floodplain development)	No	

The San Luis Obispo County Planning Department is the official regulatory body governing land use and development ordinances within the District Service Area.



L.4.2 Administrative/Technical Mitigation Capabilities

Table L-22 identifies the personnel responsible for activities related to mitigation and loss prevention in the Los Osos Community Services District.

Table L-22 Los Osos CSD Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
Planner/engineer with knowledge of land development/land management practices	Yes	County Planning and District Engineer
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	County Planning and District Engineer
Planner/engineer/scientist with an understanding of natural hazards	Yes	County
Personnel skilled in GIS	Yes	County
Full time building official	Yes	County
Floodplain manager	NA	County
Emergency manager	Yes	County
Grant writer	Yes	Los Osos CSD
Other personnel	Yes	Emergency Services Advisory Committee, County; South Bay Fire Department
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	County
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	County Sheriff's Office

L.4.3 Fiscal Mitigation Capabilities

Table L-23 identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

Table L-23 Los Osos CSD 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 – Fees for Water
Impact fees for new development	Yes
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

L.4.4 National Flood Insurance Program

As a special district, Los Osos is 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. There is only a small amount of mapped special flood hazard areas



within the district. There are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

L.4.5 Mitigation Outreach and Partnerships

The Los Osos CSD has ongoing public education and information programs related to general emergency preparedness, water conservation, and wildfire mitigation practices for homeowners. The Fire Safe Council works with the District and the community on fire prevention specific to the Los Osos community. The District plans to continue to implement planned greenbelts and fuel breaks; Los Osos CSD passed a Hazardous Vegetation Abatement Ordinance (Title 4) to assist the South Bay Fire Department in aggressively managing the defensible space around homes and vacant properties in the community. The District's website has valuable information related to various hazards including wildfire and information on defensible spaces and residential fire sprinklers and tsunami inundation maps and evacuation information specific to Los Osos.

The Los Osos CSD Emergency Services Advisory Committee was established in 2008 to assist the District's Board of Directors in providing emergency services to the District. Advisory Committee meetings are a public forum with the ability for the public to review and provide input on issues.

Cabrillo Estates in Los Osos is a designated FireWise community.

L.4.6 Opportunities for Enhancement

Based on the capabilities assessment, the Los Osos Community Service District has several existing mechanisms in place that already 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. This planning process will help to inform the District's current efforts in the development of a community wide emergency preparedness program. Other 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, the Emergency Services Advisory Committee and District 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 Los Osos Community Service District will lead to more informed staff members who can better communicate this information to the public.

L.5 Mitigation Strategy

L.5.1 Mitigation Goals and Objectives

The Los Osos CSD adopts the hazard mitigation goals and objectives developed by the HMPC and described in Section 7 Mitigation Strategy.

L.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the Los Osos CSD Planning Team reviewed all the mitigation actions (three actions) from the previous LHMP. The review indicated no actions have been completed. One action from 2020, LO.2 – Engineer and Install a SCADA System, was reviewed for relevance in the 2025 mitigation strategy. It was decided to delete this action, and revise and expand it to be two new actions for the 2025 mitigation strategy to better suit the needs and goals of the community, as well as capture progress that had been made on the action since 2020. This became actions LO-4 and LO-5 for the 2025 mitigation action plan, in Table L-24 below.



L.5.3 Mitigation Actions

The Los Osos CSD has eight mitigation actions for their 2025 Mitigation Action Plan, including two continued actions and six new or updated that are captured in Mitigation Action Plan in Table L-24. The planning team for the Los Osos Community Service 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. Timeline and project cost definitions are noted in Section 7.3.2 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. It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Dense Fog.

**Table L-24 Los Osos Community Service District 2025 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
LO.1	Adverse Weather: Thunderstorm; Adverse Weather: High Wind/Tornado ; Coastal Storm/Coastal Erosion/Sea Level Rise Flood; Wildfire,	Improve drainage, public education on construction management, safe driving tips in dense fog conditions, evacuation routes and vegetation management to improve resiliency to multiple hazards.	Los Osos CSD Administration, SLO County OES	\$10,000 to \$50,000. FEMA HMA	High	3-5 yrs.	In progress/ongoing. All drainage areas have been improved/ upgraded. Vegetation management is in progress to address wildfire and wind hazards.
LO.2	Wildfire	Educate the public to take precautions to prevent potentially harmful fires and be educated about surviving them. The District is encouraging local organizations to involve the residents of Los Osos and is helping coordinate town hall meetings, Community Emergency Response Team training and sending social media blasts regarding fire safety. There are many local organizations that residents can join in order to be better prepared in case of a fire; Fire Safe Council, Fire Wise Cabrillo, and the Emergency Services Advisory Committee to the Los Osos Board of Directors. Benefits: With an involved community we hope to reduce risks of wildland fires to a minimum. In case of a wildfire, we hope that the community will be prepared in order to avoid human and property loss.	Los Osos CSD Administration / South Bay Fire Dept	Little to no cost; Staff Time, General Fund	High	Ongoing/annual	Annual Implementation
LO.3	Adverse Weather: Thunderstorm; Coastal Storm/Coastal Erosion/Sea Level Rise, Flood	Los Osos experiences periodic heavy rains that cause minor to major flooding in areas where storm water is directed by roads and drainage patterns. The LOCSD needs to partner with County Public Works to prioritize problem areas and fund improvements to improve conditions. Additional actions include public education on-site storm water detention, public information on evacuation routes,	Los Osos CSD Administration, San Luis Obispo County Public Works Department	Over \$1,000,000. FEMA Hazard Mitigation Assistance Grant, General	High	More than 5 years	New in 2025; Public comment on the plan noted persistent flood problems with homes in the 1400 block between 11th Street and 9th Street along El Moro in Los Osos



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
		increase storm water drainage basin inspections and improvements.		Fund, Prop 4			
LO.4	Drought and Water Shortage	Drought conditions persist throughout California and especially in San Luis Obispo County. Currently, there is no back up water supply in the event of an extended drought. The District needs to continue to implement the Basin Plan and provide an alternative source of water like imported water to ensure the residents of a resilient and reliable water supply in future.	Los Osos CSD Administration, Utilities, Golden State Water Company, S&T Mutual Water Company	Over \$1,000,000. FEMA Hazard Mitigation Assistance Grant, General Fund, Prop 4	High	3-5 years	New in 2025
LO.5	Earthquake	In order to mitigate earthquake losses, the District needs to secure additional backup electrical generation capabilities, seismically retrofit the 10th Street water tank, complete the SCADA system project and establish supply chain contact for materials needed for repair of the water system.	Los Osos CSD Administration, Utilities	Over \$1,000,000. FEMA Hazard Assistance Grants.	High	More than 5 years	New in 2025
LO.6	Adverse Weather: Extreme Heat, Drought and Water Shortage	Though the climate of Los Osos is cool to moderate, high temperatures are not uncommon in the summer and early fall, and many homes do not have air conditioning. When high temperatures are forecasted, Los Osos CSD will develop informational materials that will assist residence to take the appropriate measures to remain safer. Additionally, informational materials will focus on conserving water both indoors and outdoors.	Los Osos CSD Administration, South Bay Fire Dept	Little to no cost. Staff Time, General Fund	Low	2-3 years	New 2025
LO.7	Adverse Weather: High Wind/Tornado	Los Osos experiences high winds during winter storms and spring wind events. Public education on preparedness measures will be developed and distributed to the community.	Los Osos CSD Administration, South Bay Fire Dept	Less than \$10,000, Staff Time, General Fund	Medium	1 year	New in 2025
LO.8	Tsunami	Educate the public about tsunami dangers and appropriate response and mitigation actions, in partnership with Morro Bay Action MB.11.	Los Osos CSD Administration, South Bay	Little to no cost. Staff Time,	Medium	Annual	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
			Fire Dept; City of Morro Bay	General Fund			



L.6 Implementation and Maintenance

Moving forward, the Los Osos Community Service 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 in the Base Plan.

L.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 Community Service District to help inform updates of the Los Osos Community Plan and in the development of additional local plans, programs and policies. Understanding the hazard that pose a risk and the specific vulnerabilities to the jurisdiction will help in future capital improvement planning for the District. The 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 Los Osos Community Service District area. As noted in Section 8 Plan Implementation and Monitoring, the HMPC representatives from the Los Osos Community Services 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 plan review meeting.

L.6.2 Monitoring, Evaluation and Updating the Plan

The Los Osos Community Service 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 the County HMPC, and for coordination with County staff and departments during plan updates. The Los Osos Community Services 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 M Nipomo Community Services District

M.1 District Profile

M.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 Hazard Mitigation Plan (HMP) update. The previous HMP was not incorporated into any formal planning mechanisms for the Nipomo Community Services District (CSD) due to lack of opportunity. The CSD plans to incorporate this update when the opportunity arises. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The General Manager of the Nipomo CSD was the representative on the County HMPC and took the lead for developing the plan and this annex in coordination with the Nipomo CSD Local Planning Team (Planning Team). The Local Planning Team will be responsible for implementation and maintenance of the plan. Table M-1 summarizes the district's planning team for the plan revision process.

Table M-1 Nipomo CSD Hazard Mitigation Local Planning Team

DEPARTMENT	TITLE
Administration	General Manager
Operations	Director of Engineering and Operations
Operations	Operations Manager
Operations	Water Supervisor
Operations	Wastewater Supervisor

The plan must document opportunities for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies with the authority to regulate development, as well as businesses, academia, and other private and non-profit interests, to actively participate in the planning process. Stakeholder groups are listed below in Table M-2.

Table M-2 Nipomo Stakeholder Groups

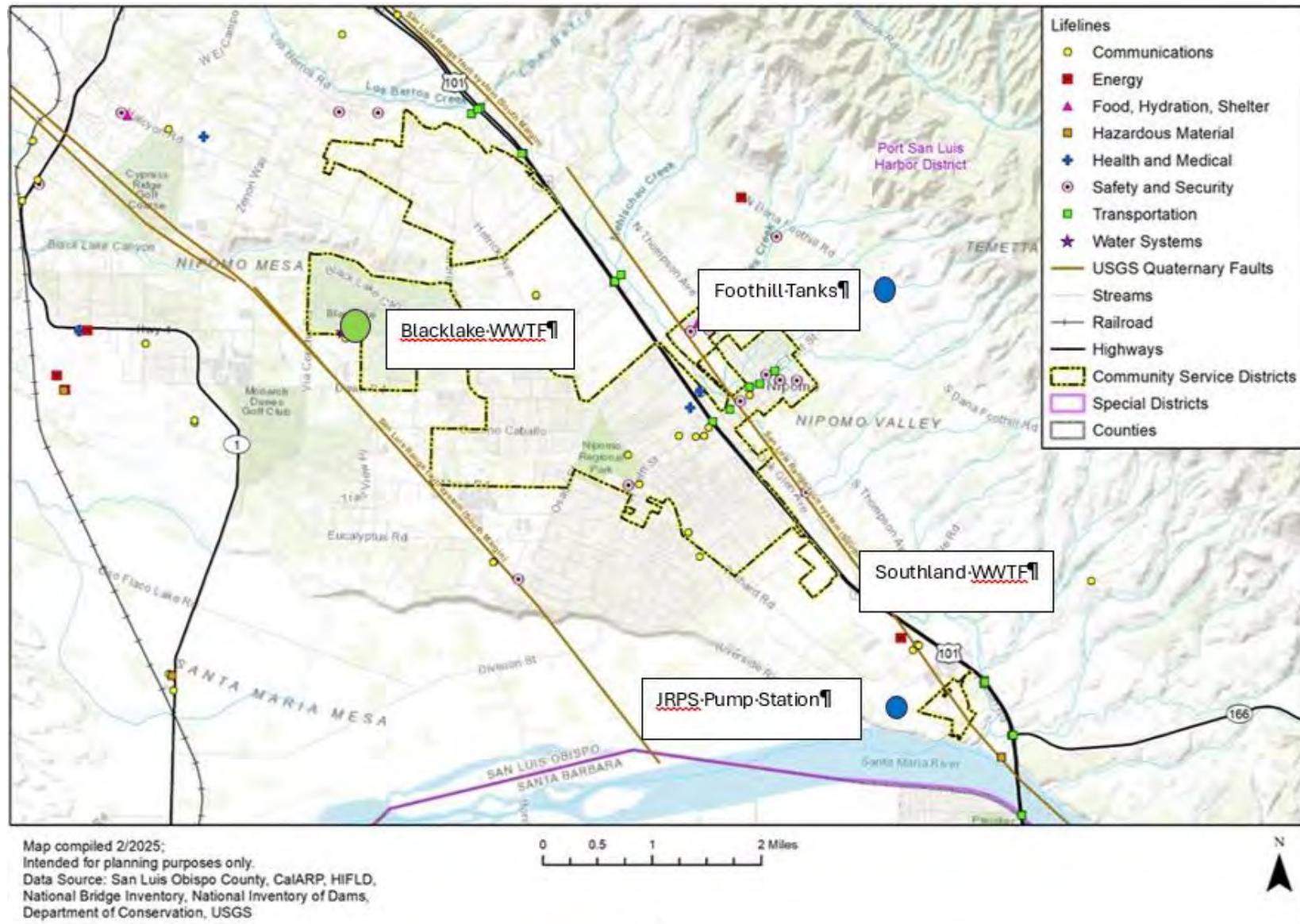
STAKEHOLDER GROUP	ORGANIZATION
Agencies involved in hazard mitigation activities	SLO County Fire
Agencies that have the authority to regulate development	SLO County Planning & Building
Neighboring communities	Grover Beach Community Development
Representatives of business academia, and other private orgs	South County Chambers of Commerce
Representatives supporting underserved communities	Peoples Self Help Housing

More details on the planning process 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 M-1 is a map of the larger Nipomo community including nearby special districts critical facility lifelines.



Figure M-1 Nipomo Community Services District





M.1.2 District Overview

The Nipomo Community Services District's (CSD) mission is to provide its customers with reliable, quality, and cost-effective services now and in the future. The district was established in 1965 under the Community Services District Law of the Government Code Section 61000, assisted by the Nipomo Citizen's Steering Committee. The proposed district at the time consisted of 1,384 acres that included 560 dwellings and about 2,300 people hoping to solve the community's early water and sewer problems after several typhoid fever cases in the early 1960s tied the health issues to nitrates in the water and proximity to sewer tanks.

In present times, the Nipomo CSD is governed by a board of directors, each with different committee assignments and possible delegations. This Board is responsible for providing counsel related to water management and resources, overall administration, financing/auditing, and facilities to the Nipomo community.

Nipomo is located in the southwest portion of the County of San Luis Obispo next to Highway 101, within the South County Planning Area. It currently serves about 14,000 people in a somewhat rural environment between the Five Cities Area of the county and the City of Santa Maria (in the County of Santa Barbara). The Nipomo CSD has expanded to cover over six square miles, and provides limited stormwater, street lighting, and landscape maintenance. The district's sphere of influence covers about nine square miles in addition to the current service area and based on the latest LAFCO-developed Municipal Service Review, growth in the Nipomo area is expected to follow a 1% rate over the next 20 years.

The bulk of the CSD's facilities are comprised of pipes, pumps, treatment, and tanks. Recent efforts related to the district's water infrastructure have been focused on earthquake related hazards, due to the district's location atop an ancient sand dune as well as crossing of several earthquake faults. Exposure to liquefaction and other earth movement issues is of concern to Nipomo as well, but there has not been any recent damage to key infrastructure from earthquake and liquefaction hazards.

According to the U.S. Census Bureau's American Community Survey 5 year estimate (2018-2023), in 2023 Nipomo had a population of 17,266. This a 7.6% decrease from 2018. More information surrounding Nipomo demographic and social characteristics are below in Table M-3.

Table M-3 Nipomo CDP Demographic and Social Characteristics, 2018-2023

NIPOMO CDP	2018	2023	% CHANGE
Population	17,455	17,266	-7.6%
Median Age	40.1	39.3	-.4%
Total Housing Units	5,988	6,027	-3.8%
Housing Occupancy Rate	94.6%	94.3%	-.4%
% of Housing Units with no Vehicles Available s2504	2.8%	5.4%	+90.9%
Median Home Value dp04	\$500,000	\$674,100	+46.1%
Unemployment dp03	4.1%	1.7%	+25%
Mean Travel Time to Work (minutes) s0801	23.2	27.5	-9.9%
Median Household Income s2506	\$100,486	\$139,126	+18.6%
Per Capita Income dp03	\$32,929	\$39,021	+29.6%
% of Individuals Below Poverty Level s1701	9.9%	5.8%	-18.4%
# of Households s1101	5,664	5,682	-4.1%



NIPOMO CDP	2018	2023	% CHANGE
Average Household Size	3.08	3.03	+3.6%
% of Population Over 25 with High School Diploma ≤1501	83.5%	83.5%	+1.6%
% of Population Over 25 with Bachelor's Degree or Higher	23.7%	25.4%	-25.7%
% with Disability	10.4%	13.9%	-8.8%

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

Note: Data is for the Los Osos Census Designated Place (CDP) which may not have the same boundaries as the Cambria Community Service District.

The following table show how the Nipomo CDP's labor force breaks down by occupation and industry estimates from the 2023 American Community Survey. The industries with the most employees are educational services, health care and social assistance (23.3%) as shown in below Table M-4. The most common occupations in Nipomo are those in management, business, science, and the arts (36.3%) as shown in Table M-5.

Table M-4 Nipomo CPD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	%
Population (16 years and over)	13,780	
In Labor Force	8,520	61%
Agriculture, forestry, fishing and hunting, and mining	684	8.3%
Armed Forces		0%
Construction	828	10%
Manufacturing	596	7.2%
Wholesale trade	156	1.9%
Retail trade	456	5.5%
Transportation and warehousing, and utilities	725	8.7%
Information	94	1.1%
Finance and insurance, and real estate and rental and leasing	223	2.7%
Professional, scientific, and management, and administrative and waste management services	758	9.1%
Educational services, health care and social assistance	1,930	23.3 %
Arts, entertainment, recreation, and accommodation and food services	608	7.3%
Other services, except public administration	661	8%
Public administration	570	6.9%
Unemployed	231	1.7%

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

Table M-5 Nipomo CPD Employment by Occupation (2023)

INDUSTRY	# EMPLOYED	%
Population (2023)	13,780	
In Labor Force	8,520	61.8%
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/



M.1.3 Development Trends

Nipomo developed their most recent Strategic Plan in 2018 with an update expected in 2025. This plan outlines the district's initial priority issues for the coming years (among other key plan aspects), and these were identified during workshops and interviews with the board members, managers, and directors of local operative processes. Three priorities were outlined in this Strategic Plan document: 1) Maintain and enhance community sustainability, financial stability, and infrastructure stability; 2) optimize operations and achieve customer satisfaction; and 3) attain operational resiliency and encourage employee leadership and development. In terms of hazards and related mitigation opportunities, it is important to acknowledge these goals and objectives to ensure effective planning mechanisms and efforts across the district, especially to enable or help move forward currently ongoing activities.

As of 2023, the American Community Survey noted the CSD's population to be approximately 17,266. Prior to 2015, Nipomo was relying solely on groundwater sources. Although growth has been very slight and slow in Nipomo, due to extreme drought and growing water demands, groundwater was becoming scarce and shortage conditions required solutions to balance supply versus demand in the district. In 2015, the district began a \$34 million public works project (the largest and most important in the District's 50-year history) to obtain supplemental water from Santa Maria Water deliveries began that year, allowing for millions of gallons to avoid being pumped from the troubled water basin underlying the Nipomo Mesa. The intertie pipeline project connects Nipomo's water system to Santa Maria's, and currently delivers 1000 acre-feet of water to Nipomo every year. Growth since the last update of this plan has not notably increased or decreased vulnerability to any of the hazards identified in Section M.3.3. However, significant growth is expected in the next five years with the County's approval of the Dana Reserve development which may increase the district's vulnerability to wildfire as development expands further into the WUI.

M.1.4 Other Community Planning Efforts

The development of this Community Services District Annex involved a comprehensive review of existing plans, studies, reports, and initiatives from San Luis Obispo County and the Nipomo community that relate to hazards or hazard mitigation. A high-level summary of the key plans, studies and reports is summarized in Table M-6. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the Nipomo Strategic Plan, there are County planning mechanisms that regulate future and existing development within the Nipomo CSD planning area. Refer to Section M.4 Capability Assessment for more information on the plans, policies, regulations and staff that govern the Nipomo CSD.

Table M-6 Summary of Review of Key Plans, Studies, and Reports for Nipomo CSD

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Nipomo Community Plan Update (2025)	Provided information about updates to public facilities
Nipomo Community Services District Interconnection Project (2020)	Obtained water use information and facilities information
San Luis Obispo County Community Wildfire Protection Plan (2019)	Informed the wildfire section
County of San Luis Obispo Local Hazard Mitigation Plan (2019)	Informed past hazard event history, hazard profile and background, and mitigation strategy information.
County of San Luis Obispo Land Use and Circulation Elements (Part II):	Obtained water use information, drought related details, etc.



PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
The Area Plans – Inland and South County Area Plans	
Nipomo Community Services District 2018 Strategic Plan	Obtained current District information, ongoing efforts, water use information, etc.
Nipomo Community Plan – Updated 2014	Obtained District information, history, past programs, etc.
Nipomo's Supplemental Water from Santa Maria project summary	Obtained information on past and ongoing water purchase/acquisition efforts and the drought/water scarcity hazard.
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.

M.2 Hazard Identification and Summary

The Nipomo CSD 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 Nipomo CSD (see Table M-7). There are no hazards that are unique to this CSD. (Note that earthquake and liquefaction hazards will be profiled together as one under Section M.3.3.5)

Table M-7 Nipomo CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Lightning, Freeze, Hail, Dense Fog	Limited	Likely	Negligible	Low
Adverse Weather: High Wind and Tornado	Limited	Likely	Negligible	Low
Adverse Weather: Extreme Heat	Limited	Likely	Negligible	Low
Drought and Water Shortage	Significant	Likely	Limited	High
Earthquake	Extensive	Likely	Limited	Medium
Flood	Limited	Occasional	Limited	Low
Wildfire	Significant	Occasional	Limited	Medium
Human Caused: Hazardous Materials	Limited	Highly Likely	Negligible	Low
Geographic Area Limited: Less than 10% of planning area Significant: 10-50% of planning area	Magnitude/Severity (Extent) Catastrophic—More than 50 percent of property			



HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
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.		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		

M.3 Vulnerability Assessment

The intent of this section is to assess the Nipomo CSD's vulnerability separately from that of the County, which has already been assessed in Section 5 Hazard Identification and Risk Assessment (HIRA) in the Base Plan. This vulnerability assessment analyzes the population, property, and other assets (e.g., critical facilities) at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area.

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 Nipomo CSD 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 (See Section 5.1.2). 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 M-7). 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 Nipomo CSD 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.



M.3.1 Other Hazards

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

- Agricultural Pests and Plant Diseases
- Biological Agents
- Coastal Storm/ Coastal Erosion/ Sea Level Rise
- Dam Incidents (only a small area of the district could have potential inundation from the Twitchell Dam; otherwise there is no exposure to this hazard)
- Subsidence
- Landslides and Debris Flows (Per the Planning Team landslide issues are site specific around the NCSD facilities and there are currently sufficient landslide protections these facilities)
- Tsunamis

M.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.

M.3.2.1 Values at Risk

The following data on property exposure is derived from San Luis Obispo County Assessor's data. This data should only be used as a guideline to overall values in the Community Services District as the information has some limitations. Table M-8 shows the exposure of properties (e.g., the values at risk based on improvement values, content values, and total values as an addition of these two types of values) broken down by property type for the Nipomo Community Services District. Refer to the Base Plan Section 5.2 (HIRA Asset Summary) for more details on value information, content calculations, and overall parcel analysis methodology.

Table M-8 Property Exposure Values for the Nipomo CSD by Parcel Type

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE
Agricultural	4	\$1,139,600	\$1,139,600	\$2,279,200
Commercial	70	\$96,933,973	\$96,933,973	\$193,867,946
Exempt	12	\$2,489,264	\$2,489,264	\$4,978,528
Industrial	9	\$13,078,606	\$19,617,909	\$32,696,515
Mixed Use	345	\$68,577,792	\$68,577,792	\$137,155,584
Mobile Home	289	\$31,395,158	\$15,697,579	\$47,092,737
Multi-Family Residential	59	\$57,606,158	\$28,803,079	\$86,409,237
Residential	3,513	\$1,048,201,906	\$524,100,953	\$1,572,302,859
Vacant Improved	26	\$4,083,657	\$4,083,657	\$8,167,314
Total	4,327	\$1,323,506,114	\$761,443,806	\$2,084,949,920

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis



M.3.2.2 Critical Facilities and Lifelines

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. 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 district based on San Luis Obispo County GIS data as well as structures obtained from the Homeland Infrastructure Foundation-Level Dataset (HIFLD) is provided in Table M-9, and is illustrated in Figure M-1. The four types of Critical Facilities categorized by San Luis Obispo County and its jurisdictions and districts' planning teams are: Emergency Services, High Potential Loss Facilities, Lifeline Utility Systems, and Transportation Systems. Refer to Appendix G and Section 5.2 of the Base Plan for more information on the assets used throughout this Annex and the county-wide analyses.

Table M-9 Summary of Nipomo CSD's Critical Facilities

FACILITY TYPE	COUNTS
Communication	10
Food, Hydration, Shelter	1
Health and Medical	2
Safety and Security	11
Transportation	5
Water Systems	1
Total Count	30

M.3.2.3 Additional Critical Facilities

Three additional Essential Infrastructure facilities identified by the District Lead Planning Team are listed below under the Lifeline Utility Services category.

- Wastewater Treatment Plan - \$18 million replacement value (Southland WWTF)
- Water Treatment/Distribution facility - \$50 million replacement value (Joshua Pump Station)
- Wastewater Treatment Plan - \$8 million replacement value (Blacklake WWTF)
- Foothill Water Storage Tanks

M.3.2.4 Transportation Systems and High Potential Loss Facilities

No critical transportation facilities were noted for the district. However, there may be certain structures or entities important to the district, particularly along the main corridor running through Nipomo (Highway 101) or other major nearby transportation lines (e.g., Highway 1, Highway 166).

M.3.2.5 Historic and Cultural Resources

Historical assets include local, county, state, and potentially federally listed historic sites. Based on data provided by the County of San Luis Obispo and LAFCO, it was found that there are 7 historic and cultural resources in or near the Nipomo CSD. These are summarized in Table M-10.

**Table M-10 Nipomo CSD's Historic and Cultural Resources**

AREA PLAN WHERE NOTED	PROPERTY NAME	YEAR	DESCRIPTION
South County Inland Area Plan	Dana Adobe	1839	Historical Landmark No. 1033 (Rancho Nipomo)
	Dana House	1882	535 Mehlschau
	Los Berros Adobe Barn	1860	159 Avis St
	Los Berros Schoolhouse	1890	1841 Grant Ave
	Old St. Joseph's Church	1902	110 Thompson Av
	Pacific Coast Railroad Depot	1881	right-of-way granted in 1881
	Runels Home - Dana Street	1886	now Kaleidoscope Inn & Gardens

Source: San Luis Obispo County Planning and Building; LAFCO

M.3.2.6 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. The San Luis Obispo County Inland Area Plan was adopted in 2014. This larger plan comprises the Nipomo CSD as well as Nipomo's valley sub-basins within the Santa Maria Valley Groundwater Basin, all in the South County sub-area plan. Based on information pulled from this South County sub-area plan, the Nipomo Mesa is an important destination for recreation that contributes to the local economic base, including construction of golf courses. The characteristics of the community mix urban appeal with rural features and lifestyles through development of site-sensitive treatment of scenic areas, parks, expansive biking and pedestrian infrastructure, and public and tourist-related transit that enhance quality of life. Based on these aspects, natural resources and environmental assets are undoubtedly key to the Nipomo community and should be carefully considered during development and planning efforts.

M.3.2.7 Economic Assets

Tourism is a large economic driver for the Nipomo community due to recreational and environmental assets as discussed in the above section. However, agriculture is important to the community as well, as are commercial, retail, and services. These types of economic assets could be compromised due to various hazards such as drought, flooding, earthquake, liquefaction, severe weather, and wildfire, among others.

M.3.3 Estimating Potential Losses

This section details vulnerability to specific hazards of low, 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.

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

Adverse weather in the Nipomo Community Services District includes thunderstorms, heavy rain, lightning, freeze, and dense fog. Nipomo CSD'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 entire property and facility inventory noted in M.3.2, as well as the



population, of the Nipomo CSD is exposed to the impacts of thunderstorm/heavy rain/lightning/freeze/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. Nipomo CSD 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 13 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 Santa Maria weather station is the nearest official reporting site to Nipomo CSD.

Table M-11 Santa Maria Public Airport Climate Summary Table - Weather (Period of Record: 01/01/1948 - 04/20/2025)

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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 32°F MEAN # DAYS
Winter	64.2°F	39.8°F	90°F	12/3/1958	20°F	1/2/1976	0	11.7
Spring	66.9°F	44.5°F	105°F	5/15/2014	24°F	3/2/1971	0.8	1.3
Summer	72.5°F	52.6°F	110°F	6/20/2008	36°F	6/2/1955	0.9	0
Fall	72.8°F	48.0°F	108°F	10/4/1987	25°F	11/17/1958	3.2	1.1
Annual	69.1°F	46.2°F	110°F	6/20/2008	20°F	1/2/1976	5	14.3

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 M-12 Santa Maria Public Airport Climate Summary Table - Precipitation (Period of Record: 01/01/1948 - 04/20/2025)

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECIP. 1 DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. \geq 1.00 IN. MEAN # DAYS
Winter	7.09 in.	18.39 in.	1978	1.41 in.	1964	3.42 in.	1/9/2023	1.5
Spring	3.61 in.	9.69 in.	1991	0.01 in.	1997	3.46 in.	3/20/2011	0.7
Summer	0.1 in.	0.91 in.	1976	0 in.	1955	0.84 in.	8/19/1976	0
Fall	1.9 in.	5.14 in.	1997	0.02 in.	1980	1.89 in.	10/6/1960	0.3
Annual	12.69 in.	28.24 in.	1998	2.99 in.	2013	3.46 in.	3/20/2011	2.6

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

M.3.3.2 Adverse Weather: High Wind and Tornado

Nipomo CSD's risk and vulnerability to this hazard does not differ significantly from that of the County overall significance of **low**. The entire property and facility inventory, as well as the population, of Nipomo is exposed to the impacts of high wind and tornado due to the



widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. While these hazards are not common in the region they can occasionally occur during strong storm systems, particularly in the winter months. Nipomo may experience gusty winds capable of causing minor damage and tornado activity is extremely rare across the county. Additionally, there are 289 mobile homes located in Nipomo, which are often more vulnerable to the impacts of high winds than single-family residential structures as they are typically not fixed to a foundation. An estimated 1,665 people in Heritage Ranch reside in mobile homes and may be at greater risk for injury in high wind events.

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.

M.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for Nipomo CSD. The entire property and facility inventory, as well as the population, of Nipomo is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean high fall temperature for the Santa Maria Public Airport, the closest NOAA weather station to the CSD with recent data, is 72.8°F; however, temperatures up to 110°F have been recorded (see Table M-11). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

Extreme heat can threaten the reliability of services provided by the CSD. Rising temperatures increase water demand, straining local supplies, reducing well yields, and degrade water quality through reduced dilution capacity and bacterial contamination, increasing dependence on supplemental sources. Additionally, critical infrastructure such as pumps, treatment systems, and distribution lines, can become vulnerable to overheating and reduced efficiency. Power outages linked to regional energy surges further increases the risk of service disruption, especially for water and wastewater operations.

These impacts are felt most acutely by vulnerable populations who may face heightened health risks if access to clean water or sanitation is compromised. Additionally, extreme heat puts field staff at risk, requiring potentially costly operational adjustments to ensure worker safety. Emergency services face greater demand during heat waves, as the risk of wildfire intensifies and heat-related medical emergencies become more frequent.

M.3.3.4 Drought and Water Shortage

Drought was classified by the Planning Team as the most significant hazard for Nipomo, just as it is a **high** significance hazard for the entire County of San Luis Obispo. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts do not vary in Nipomo significantly. The Nipomo CSD sources its water from two primary sources; the CSD operates four groundwater wells located in the Nipomo Mesa which extract water from the local aquifer, and imports water from the City of Santa Maria through the Nipomo Supplemental Water Project. This imported water is a blend of groundwater and surface water, including allocations from the State Water Project. In 2020, approximately 50% of the CSD's supply was sourced from groundwater wells, and the remaining 50% was obtained through the Nipomo Supplemental Water Project. In addition to the four groundwater wells, the CSD maintains five storage tanks and over ninety miles of distribution pipelines, as well as wastewater collection and treatment facilities.

A Five-Year Consecutive Dry Year Water Reliability Assessment in the 2020 Nipomo CSD Urban Water Management Plan, shown in Table M-13, evaluates the CSD's ability to sustain water



supply during prolonged drought conditions. The assessment projects that during a five-year drought, groundwater availability could decline due to increasing conservation mandates from the Nipomo Mesa Management Area (NMMA) potentially reducing pumping allowances by up to 60%. However, the CSD expects to offset these reductions with increased imported water supplies, ensuring sufficient supply to meet demand. Despite this, the CSD remains vulnerable to potential reductions in imported water availability and groundwater overdraft risks that might result in watering restrictions imposed on residents.

Table M-13 Multiple Dry Years Supply and Demand Comparison

DROUGHT YEAR	SUPPLY DEMAND	2025	2030	2035	2040	2045
First year (NMMA Stage 2)	Groundwater Supply	2,027	2,027	2,027	2,027	2,027
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	5,027	5,027	5,027	5,027	5,027
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	3,127	3,371	3,438	3,505	3,573
	Difference (AF)	1,900	1,656	1,589	1,522	1,454
Second year (NMMA Stage 3)	Groundwater Supply	1,733	1,733	1,733	1,733	1,733
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	4,733	4,733	4,733	4,733	4,733
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	3,127	3,371	3,438	3,505	3,573
	Difference (AF)	1,606	1,362	1,295	1,228	1,160
Third year (NMMA Stage 4)	Groundwater Supply	1,267	1,267	1,267	1,267	1,267
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	4,267	4,267	4,267	4,267	4,267
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	3,127	3,371	3,438	3,505	3,573
	Difference (AF)	1,140	896	829	762	694
Fourth year (NMMA Stage 5)	Groundwater Supply	1,013	1,013	1,013	1,013	1,013
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	4,013	4,013	4,013	4,013	4,013
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	3,127	3,371	3,438	3,505	3,573
	Difference (AF)	886	642	575	508	440
Fifth year (NMMA Stage 5)	Groundwater Supply	1,013	1,013	1,013	1,013	1,013
	Imported Water Supply	3,000	3,000	3,000	3,000	3,000
	Total	4,013	4,013	4,013	4,013	4,013
	District (Existing and Infill)	2,118	2,186	2,253	2,320	2,388
	Annexations Under Review	176	352	352	352	352
	Sales to Other Agencies	833	833	833	833	833
	Total	3,127	3,371	3,438	3,505	3,573
	Difference (AF)	886	642	575	508	440

Source: 2020 Nipomo Community Services District Urban Water Management Plan

The most notable impacts associated with drought in the planning area are those related to water intensive activities such as wildfire protection, jurisdictional usage, commerce, tourism



and recreation. Drought conditions can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding, erosion, and debris flows.

The San Luis Obispo County 2014-2016 Resource Summary Report related to the Nipomo CSD recommended that the District work with stakeholders including the County's Sanitation District to strengthen drought resilience by expanding recycled water use, enhancing conservation programs, developing additional storage capacity, and improving contingency planning for supply interruptions. Overall, the assessment indicates that the CSD can meet demand under extended dry-year conditions but could continue diversifying and securing water sources to mitigate long-term risks.

M.3.3.5 Earthquake

Nipomo sits on an ancient sand dune, and there are several faults underlying or near the district, such as the San Luis Range fault system/South Margin faults and the Santa Maria Fault. (See a very basic layout of the district and surrounding faults in Figure M-1). Because of earthquake, coupled with liquefaction (both of which are discussed in more detail in Section 5.3.10 of the Base Plan) and earth movement issues, the Planning Team for the District noted that its infrastructure is prone to severe or even catastrophic failure from seismic activities. However, recent efforts to construct well-designed above ground structures has resulted in greater focus on earthquake survivability for critical and essential infrastructure and properties. Because of the recent and ongoing efforts and projects in Nipomo, as well as the inherent understanding of the Planning Team regarding seismic activity and the district's infrastructure, the earthquake and liquefaction hazards can be rated as **Medium** Significance even though the County of San Luis Obispo rated it as high significance.

For example, the district built the Joshua Road Reservoir in 2017 (a post stressed designed concrete water storage structure), and it was constructed with the ability to withstand a severe earthquake during its 100-year life cycle. In addition, as with many public and municipal structures across the County, Nipomo's above ground facilities are built with a high degree of resilience and capability to withstand earthquakes. Underground facilities are less vulnerable in these environments, as flexibility of pipelines and valves in sand have limited distribution system failures during seismic activities. Nevertheless, the Planning Team noted that the original distribution systems off the ancient dunes east of Highway 101 in Nipomo would be the most vulnerable to earthquakes and would be expected to experience greater rates of failure due to the soil types in which they are found as well as the pipeline bedding practices exercised by the early District design engineers. In addition, the District's Southland and Blacklake wastewater facilities are typical above-ground facilities that are susceptible to earthquakes and would experience measurable damage consistent with the strength of an earthquake, so that the greater the quake the greater the degree of damage to these. The Southland facility was rebuilt in 2014 and incorporates modern engineering standards to better withstand earthquakes, while Blacklake, built in 1984, is more vulnerable to damage caused by an earthquake due to its age and design.

In terms of liquefaction, the Nipomo CSD is almost completely covered by liquefiable soils that are rated as posing moderate risk, resulting in the highest level of exposure to moderate or higher liquefaction risk amongst the CSDs in San Luis Obispo County. The portion of the District that falls to the east of Highway 101 (near N. Thompson Ave and north of Nipomo Creek) is only found to be at low risk of this hazard, though high risk liquefaction potential is found surrounding the District to the south, southeast, and west. See Figure M-2 for reference on liquefaction risk.

The following tables (Table M-14 and Table M-15) display the types and values of properties and the types of critical facilities located in low, moderate, or high liquefaction risk areas. Based on this analysis there are 4,327 properties exposed to liquefaction risk with a total value of over \$2



billion. Residential properties are the most vulnerable property type to liquefaction in Nipomo, with a combined total of 3,861 properties (including multi-family residential and mobile homes) with a total value of over \$1.7 billion.

**Table M-14 Nipomo CSD's Improved Properties Exposed to Liquefaction Potential by Property Type**

PROPERTY TYPE	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	STRUCTURE COUNT LOW	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	-	4	-	4	\$1,139,600	\$1,139,600	\$2,279,200	-
Commercial	-	47	23	70	\$96,933,973	\$96,933,973	\$193,867,946	-
Exempt	-	6	6	12	\$2,489,264	\$2,489,264	\$4,978,528	-
Industrial	-	9	-	9	\$13,078,606	\$19,617,909	\$32,696,515	-
Mixed Use	-	270	75	345	\$68,577,792	\$68,577,792	\$137,155,584	-
Mobile/Manufactured Homes	-	284	5	289	\$31,395,158	\$15,697,579	\$47,092,737	714
Multi-Family Residential	-	29	30	59	\$57,606,158	\$28,803,079	\$86,409,237	146
Residential	-	2,879	634	3,513	\$1,048,201,906	\$524,100,953	\$1,572,302,859	8,677
Vacant Improved	-	20	6	26	\$4,083,657	\$0	\$4,083,657	-
Total	0	3,548	779	4,327	\$1,323,506,114	\$757,360,149	\$2,080,866,263	9,537

Source: San Luis Obispo Assessor Data November 15, 2024, WSP CIS Analysis

With regards to critical facilities, the Nipomo CSD contains 18 that are at moderate risk of liquefaction, including the Blacklake Wastewater Treatment facility (classified in Water Systems lifeline). These are noted in Figure M-2. No critical facilities are found in high liquefaction risk areas.

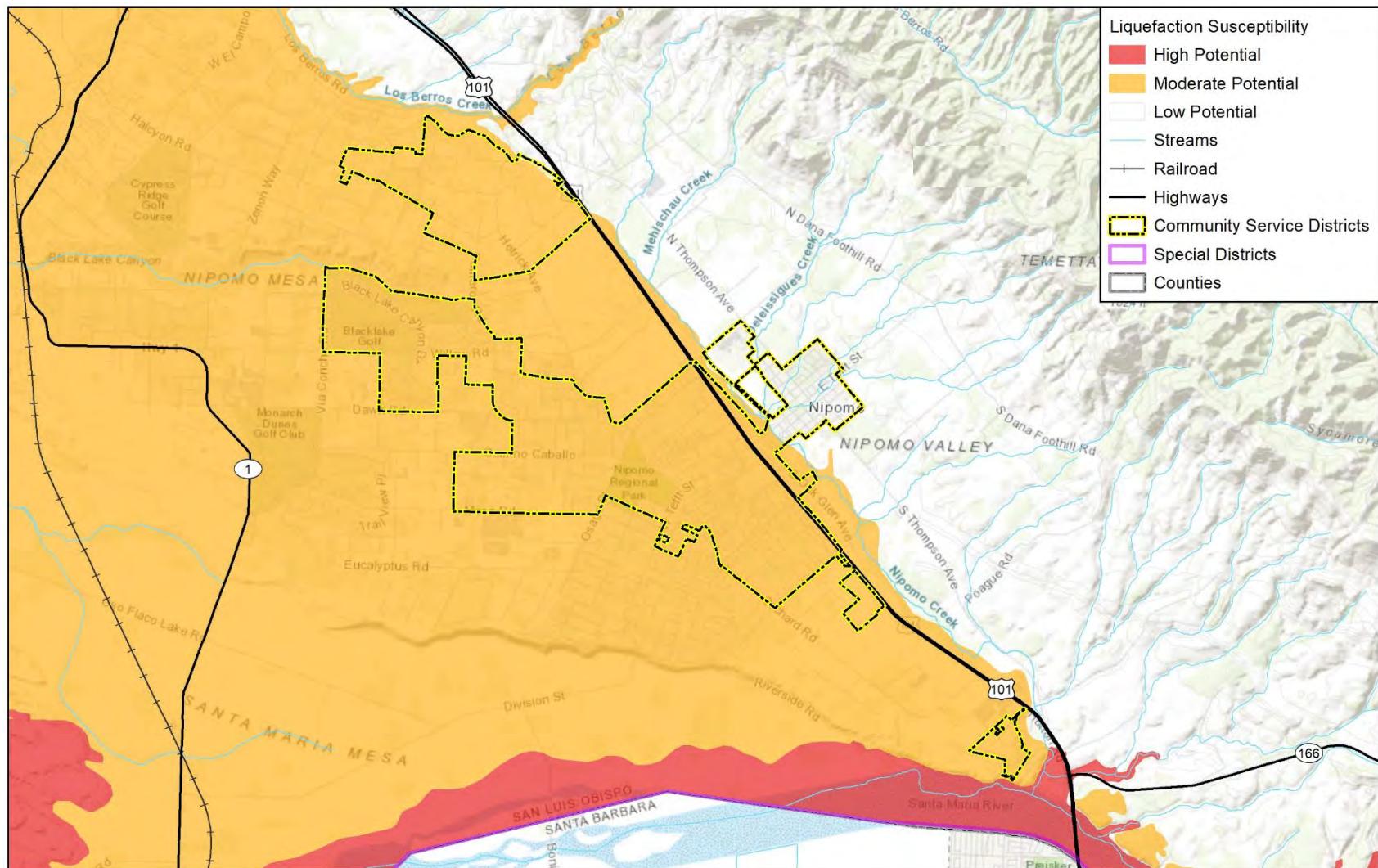
Table M-15 Critical Facility Assets Exposed to Liquefaction Susceptibility by FEMA Lifeline

LIQUEFACTION SUSCEPTIBILITY	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Medium Liquefaction Susceptibility	9	-	-	2	-	4	2	1	18
Low Liquefaction Susceptibility	1	-	1	-	-	7	3	-	12

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



Figure M-2 Liquefaction Risk in the Nipomo CSD



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

0 0.5 1 2 Miles

N



M.3.3.6 Flood

The Nipomo CSD lies within San Luis Obispo County's Water Planning Area 3, which corresponds to the San Luis Obispo/South County zone. Nipomo is located in the Nipomo Creek/Santa Maria River watershed and remains exposed to riverine flood hazards.

Based on the most recent effective Flood Insurance Rate Maps (FIRMs) published by FEMA for San Luis Obispo County, areas of Nipomo remain at risk from both 1% annual chance (100-year) and 0.2% annual chance (500-year) flood events. Nipomo Creek, which flows north-south and runs parallel to Highway 101 east of the community, poses the most significant flood risk. The Santa Maria River, located south of the District, and tributaries such as Deleissigues Creek and Mehlschau Creek also contribute to localized flood risk. The highest concentrations of 1% annual chance floodplain are located near Tefft Street and North Thompson Avenue. Smaller 0.2% annual chance flood zones are found in areas east of Highway 101.

Levee Description

One levee system provides localized flood protection to portions of the Nipomo area. The Santa Maria River Levee, constructed by the U.S. Army Corps of Engineers (USACE) in 1963 under the Flood Control Acts of 1938 and 1954, was designed to protect the city of Santa Maria and surrounding areas. The levee is currently operated by the Santa Barbara County Flood Control and Water Conservation District, with partial maintenance funding provided by San Luis Obispo County's Zone 4 Flood Control District. Zone 4 collects service fees from benefitting San Luis Obispo County properties, including parts of Nipomo, and reimburses Santa Barbara County for levee maintenance.

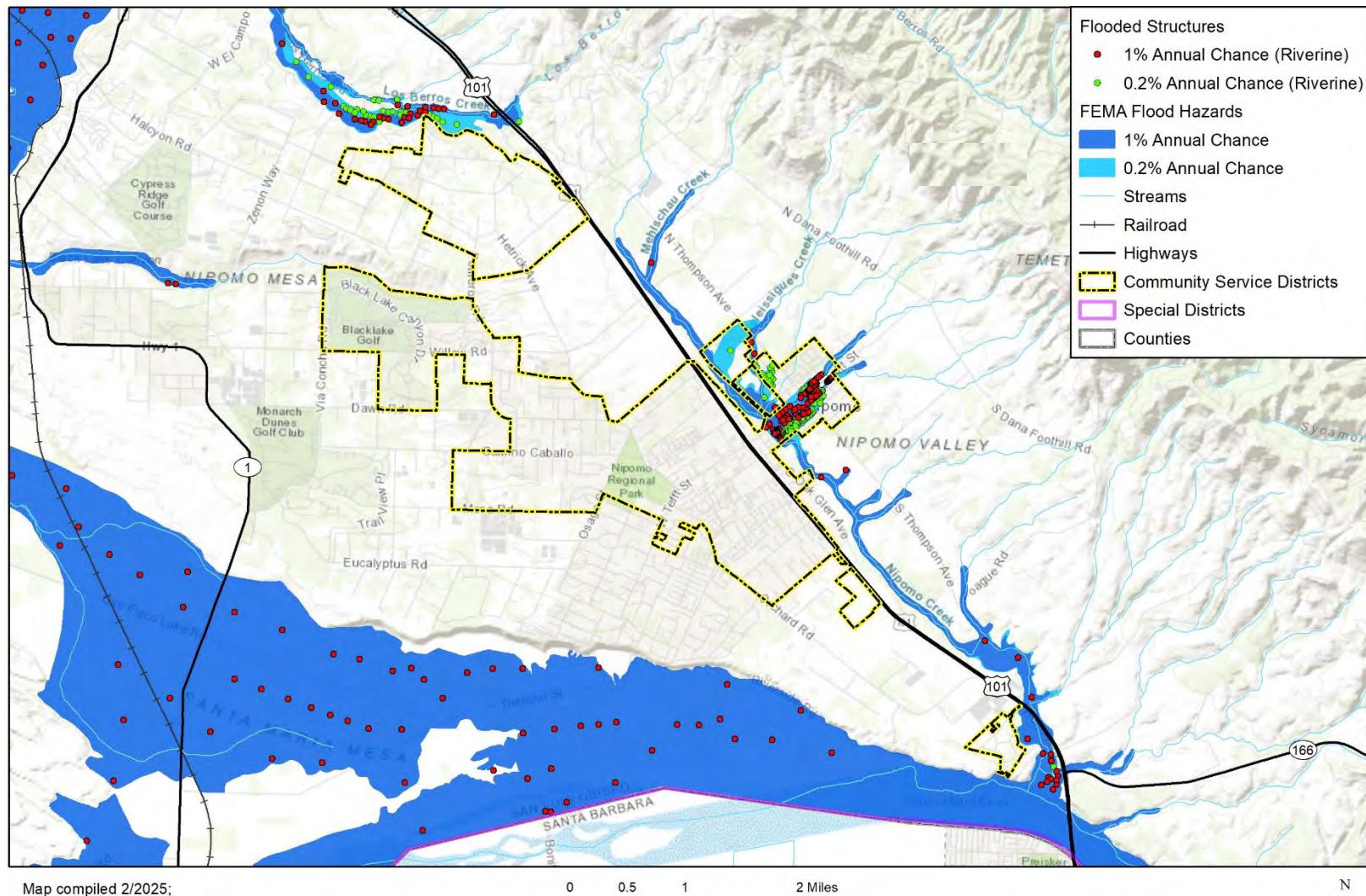
The levee has experienced damage from several low to moderate flood events and breached entirely in 1998, flooding nearby agricultural land. In 1983, USACE modified a portion of the structure by adding groin systems to reduce erosive cross-flow impacts; however, large segments remain unmodified and are vulnerable to undercutting and failure. While Reaches 1 through 3 and the Bradley Canyon Levee have been improved to their design standard of protection, the overall levee system is not certified by USACE to withstand a 1% annual chance flood. Following recent inspections, it remains listed on the national levees at risk of failure inventory.

Flood Hazard Summary

To date, only minor riverine flooding has affected the Nipomo CSD. As of the 2025 update, the HMPC continues to rank the flood hazard as **low** significance for the District based on the potential risk to life and property. For additional context and a countywide flood hazard assessment, refer to Section 5.3.8 of the Base Plan. Figure M-3 shows the FEMA flood hazard areas in the Nipomo CSD, below.



Figure M-3 FEMA Flood Hazard Areas in the Nipomo CSD



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

0 0.5 1 2 Miles

N



Table M-16 and Table M-17 show the parcels and population at risk to the 1% and 0.2% annual chance floodplains, below.

Properties at Risk

Table M-16 Parcels and Population at Risk to 1% Annual Chance Flood Hazard Areas in the Nipomo CSD

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Commercial	13	\$4,788,973	\$4,788,973	\$9,577,946	\$2,394,487	-
Exempt	2	\$60,087	\$60,087	\$120,174	\$30,044	-
Mixed Use	39	\$6,375,769	\$6,375,769	\$12,751,538	\$3,187,885	-
Multi-Family Residential	8	\$1,806,412	\$903,206	\$2,709,618	\$677,405	20
Residential	34	\$5,486,593	\$2,743,297	\$8,229,890	\$2,057,472	84
TOTAL	96	\$18,517,834	\$14,871,332	\$33,389,166	\$8,347,291	104

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Table M-17 Parcels and Population at Risk to 0.2% Annual Chance Flood Hazard Areas in the Nipomo CSD

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Commercial	9	\$2,621,604	\$2,621,604	\$5,243,208	\$1,310,802	-
Exempt	1	\$0	\$0	\$0	\$0	-
Mixed Use	37	\$6,705,993	\$6,705,993	\$13,411,986	\$3,352,997	-
Multi-Family Residential	9	\$3,669,856	\$1,834,928	\$5,504,784	\$1,376,196	22
Residential	69	\$9,908,781	\$4,954,391	\$14,863,172	\$3,715,793	170
TOTAL	125	\$22,906,234	\$16,116,916	\$39,023,150	\$9,755,787	193

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Flood exposure within the Nipomo CSD includes a total of 96 parcels in the 1% annual chance (100-year) floodplain, with an estimated \$33.39 million in combined improved and content value. The majority of at-risk structures fall under mixed-use (\$12.75 million) and residential (\$8.23 million) categories, followed by commercial parcels valued at \$9.58 million. Estimated losses for this flood scenario total \$8.35 million, indicating a significant portion of structural value is vulnerable to a single high-magnitude event. In the 0.2% annual chance (500-year) floodplain, total parcel exposure increases to 125 parcels, with \$39.02 million in total value and \$9.76 million in estimated loss. Residential and mixed-use parcels again dominate value exposure, with combined losses exceeding \$7 million, while commercial assets make up roughly 13% of total loss value. These figures reflect meaningful structural risk even in areas outside the FEMA-designated flood zones.



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

Population at Risk

Population exposure within Nipomo CSD remains concentrated in residential and multi-family housing within both mapped flood zones. In the 1% (100-year) floodplain, 104 people are exposed, including 84 residents in single-family parcels and 20 in multi-family units. While the total population count is modest, these properties represent some of the highest density residential areas near Nipomo Creek and Tefft Street. In the 0.2% (500-year) floodplain, population exposure increases to 193 residents, nearly double the 100-year count. This includes 170 individuals in residential parcels and 22 in multi-family structures, showing a broader extent of risk into less frequently flooded zones. The expansion of exposure in the 0.2% (500-year) area suggests that larger storm events, though rare, could affect a significantly greater portion of the District's housing base and disrupt service delivery or evacuation operations across multiple neighborhoods.

Critical Facilities at Risk

A total of six critical facilities in Nipomo CSD fall within the 1% (100-year) annual chance floodplain, as identified using FEMA and DWR datasets. These include one communications facility, two safety and security facilities, and three transportation assets. Notably, no water, medical, energy, or shelter-related facilities are located within this zone, which helps reduce direct impacts to core life-sustaining infrastructure during a 1% annual chance flood event. However, the presence of multiple transportation and public safety assets in this zone may disrupt emergency access routes and first responder coordination if flooding occurs.

Within the 0.2% (500-year) floodplain, three critical facilities are exposed, including one food, hydration, and shelter facility and two safety and security assets. Although fewer facilities are impacted at this less frequent flood depth, the presence of shelter and public safety infrastructure in the 0.2% zone suggests that larger storm events could disrupt recovery staging locations or temporary housing during extended emergencies. The concentration of public safety-related facilities across both zones highlights the importance of maintaining continuity of operations planning and backup systems, particularly where overlapping flood risks and emergency services intersect. Table M-18 and Table M-19 show the critical facility assets with the Nipomo CSD exposed to flood hazards, below.

Table M-18 Nipomo CSD Critical Facility Assets Exposed to FEMA and DWR Awareness 1% Flood Hazards by FEMA Lifelines

COMMUNITY SERVICE DISTRICT	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Nipomo	1	-	-	-	-	2	3	-	6

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

**Table M-19 Nipomo CSD Critical Facility Assets Exposed to FEMA Riverine 0.2% Flood Hazards by FEMA Lifelines**

COMMUNITY SERVICE DISTRICT	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Nipomo	-	-	1	-	-	2	-	-	3

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

M.3.3.7 Wildfire

The overall significance of wildfire in Nipomo CSD is rated as **medium** significance. While there is no recent fire history in the Nipomo CSD, due to factors such as the coverage of high fire hazard severity zones in about half of Nipomo, and its sphere of influence, as well as parcel analysis results. The geography, climate, and land use factors make the district more vulnerable to wildfire than the coastal areas.

In Nipomo CSD, 1,380 properties are situated within wildfire hazard exposure zones ranging from moderate to very high risk. None of these properties are located in the Very High Fire Severity Zone, while 398 properties fall within the High Fire Severity Zone and 982 properties fall within the Moderate Fire Hazard Severity zone. Collectively, these properties represent a total assessed value of \$733,614,228 and impact approximately 3,325 residents across all fire hazard severity zones. Table M-20 shows the properties in the district exposed to Fire Hazard Severity Zones. Figure M-4 depicts the Fire Hazard Severity Zones in Nipomo CSD.

GIS analysis shows the critical facilities in Nipomo CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there is a total of one (1) critical facilities that fall in the high fire severity zone rating, seven (7) in the moderate fire hazard severity zone and none that fall into the very high fire hazard severity zone rating. Only one school is found within fire severity zones in Nipomo. This is a private school (Highland Preparatory School) located to the west of Highway 101, off Live Oak Ridge Road.

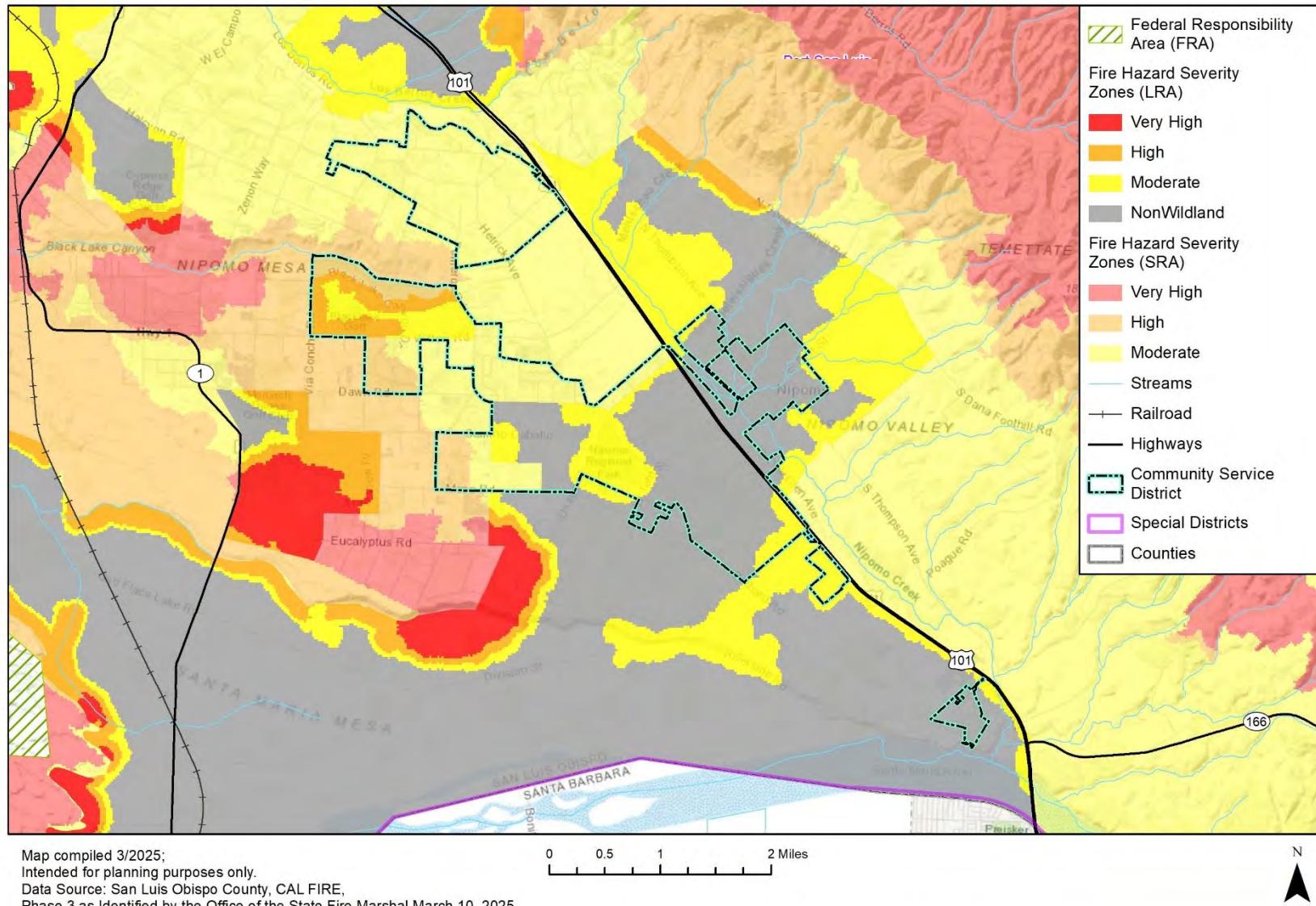


Table M-20 Nipomo CSD Improved Properties Exposed to Fire Hazard Severity Zones by Property Zone

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	-	-	3	3	\$508,298	\$508,298	\$1,016,596	-
Commercial	-	2	10	12	\$12,142,573	\$12,142,573	\$24,285,146	-
Exempt	-	-	1	1	\$821,961	\$821,961	\$1,643,922	-
Industrial	-	-	5	5	\$6,572,730	\$9,859,095	\$16,431,825	-
Mobile/Manufactured Homes	-	2	33	35	\$6,589,928	\$3,294,964	\$9,884,892	86
Multi-Family Residential	-	-	6	6	\$1,350,136	\$675,068	\$2,025,204	15
Residential	-	394	911	1,305	\$450,903,105	\$225,451,553	\$676,354,658	3,223
Vacant Improved	-	-	13	13	\$1,971,985	\$0	\$1,971,985	-
Total	0	398	982	1,380	\$480,860,716	\$252,753,512	\$733,614,228	3,325

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis

Figure M-4 Fire Hazard Severity Zones in the Nipomo CSD





M.3.3.8 Human Caused: Hazardous Materials

The Nipomo Planning Team rated hazardous materials incidents as having **medium** overall significance. The Cal OES Spill Release Reporting Center reports 18 hazardous materials incidents in the Nipomo CSD from January 1st, 2019 through December 20th, 2024. This likely excludes a number of unreported minor spills. The 18 reported incidents constitutes 3.97% of the hazardous materials incidents reported countywide during the same time frame and averages out to roughly 3 incidents per year.

M.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 Nipomo CSD capabilities are summarized below.

M.4.1 Regulatory Mitigation Capabilities

Table M-21 Nipomo CSD Regulatory Mitigation Capabilities 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 M-21 Nipomo CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	No	Included in the San Luis Obispo County efforts
Zoning ordinance	No	Included in the San Luis Obispo County efforts
Subdivision ordinance	No	Included in the San Luis Obispo County efforts
Growth management ordinance	No	Included in the San Luis Obispo County efforts
Floodplain ordinance	No	Included in the San Luis Obispo County efforts
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	Included in the San Luis Obispo County efforts
Building code	No	Included in the San Luis Obispo County efforts
Fire department ISO rating	No	Included in the San Luis Obispo County efforts
Erosion or sediment control program	No	Included in the San Luis Obispo County efforts
Stormwater management program	No	Included in the San Luis Obispo County efforts
Site plan review requirements	No	Included in the San Luis Obispo County efforts



REGULATORY TOOL	YES/NO	COMMENTS
Capital improvements plan	Yes	NCSD Budget Document
Economic development plan	No	Included in the San Luis Obispo County efforts
Local emergency operations plan	Yes	NCSD Emergency Operations Plan
Other special plans	No	Included in the San Luis Obispo County efforts
Flood Insurance Study or other engineering study for streams	No	Unknown
Elevation certificates (for floodplain development)	No	Included in the San Luis Obispo County efforts

Source: Wood Data Collection Guide, 2019; Nipomo CSD

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

Building codes and regulations for construction and development in Nipomo are governed by the county. The district does maintain its own Code Book which includes ordinances for the district's operations; water, sewer, and solid waste management. For building codes, the district adopts the same ones as the county, which enforces the California Building Standards Code which includes the California Building Code and California Residential Code. Any new construction or major renovation projects in Nipomo must comply with these county and state codes.

M.4.3 Administrative/Technical Mitigation Capabilities

Table M-22 Table M-22 Nipomo CSD Administrative/Technical Mitigation Capabilities identifies the personnel responsible for activities related to mitigation and loss prevention in the Nipomo Community Services District.

Table M-22 Nipomo CSD Administrative/Technical Mitigation Capabilities

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

Source: Wood Data Collection Guide, 2019; Nipomo CSD



M.4.4 Fiscal Mitigation Capabilities

Table M-23 Table M-23 Nipomo CSD Fiscal Mitigation Capabilities identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

Table M-23 Nipomo CSD 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	No
Incur debt through special tax bonds	No
Incur debt through private activities	No
Withhold spending in hazard prone areas	No

M.4.5 National Flood Insurance Program

As a special district, Nipomo is not eligible to participate in the National Flood Insurance Program (NFIP) and floodplain administration falls under the County's purview. There are no repetitive loss properties, but one severe repetitive loss property, as defined by the NIFP, located within the District.

M.4.6 Mitigation Outreach and Partnerships

The Nipomo Community Services 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 Nipomo's Strategic Plan, updated in 2018.

Table M-24 Nipomo CSD Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO
School programs	Yes
Community Newsletters	Yes
Utility Bill Inserts	Yes
Community Organizations (Lions, Kiwanis, etc.)	Yes

M.4.7 Opportunities for Enhancement

Based on this capabilities assessment and the noted information from existing plans and efforts (e.g., those noted in the District's Strategic Plan from 2018), the Nipomo Community Services 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; or even obtaining official certifications such as Storm Ready or FireWise certification. 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 Nipomo Community Services 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. Furthermore, the Planning Team for the District noted that Nipomo often seeks to find opportunities to reinforce and strengthen its infrastructure during the initial design of facilities planned to be built. A review process that involves assessing other existing facilities against hazards to determine their vulnerability has not been fully cataloged, so Nipomo hopes to continue these ongoing efforts in the future.

M.5 Mitigation Strategy

M.5.1 Mitigation Goals and Objectives

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

M.5.2 2019 Completed Mitigation Actions

The Lead Planning Team reviewed the mitigation actions listed in the 2019 plan and found that one action had been completed as shown below in Table M-25.

Table M-25 Nipomo CSD Completed and Deleted Mitigation Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
N.2*	Drought	Add secondary source of water supply as additional supply to hedge against future drought conditions.	NCSD	Completed. Deliveries started July 2025.

M.5.3 Mitigation Actions

The Lead Planning Team for the Nipomo Community Services District identified and prioritized the following mitigation actions based on the conducted risk assessment (see Table M-7). Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Timeline and project cost definitions are noted in Section 7.3.2 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.

A special note regarding a column in the table: The 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Dense Fog/Freeze.



Table M-26 Nipomo CSD'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
N.1	Earthquake; Adverse Weather: Thunderstorm, High Wind and Tornado; Adverse Weather: Extreme Heat	Retrofit treatment facility buildings to increase resiliency to hazards.	NCSD Operations	High; FEMA Hazard Mitigation Assistance Grant	Medium	5 years	Not started. Initial funding proposed for Budget FY25-26.
N.2	Wildfire; Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado; Adverse Weather: Extreme Heat Drought and Water Shortage, Earthquake	Install backup generators at key water production facilities to ensure water availability during power grid failures or brownouts from multiple hazards and also to ensure that firefighting capacity remains.	NCSD Operations	Moderate; FEMA Hazard Mitigation Assistance Grant	Medium	1 year	In Progress. The District completed 1 out of the 4 needed. We are doing a phased approach as funding allows.
N.3	Drought and Water Shortage, Adverse Weather: Extreme Heat	Update the Nipomo CSD Urban Water Management Plan and Water Shortage Contingency Plan to further define actions to mitigate and respond to various drought conditions	NCSD Utilities	Moderate; General Fund, Staff Time, Prop 4	Medium	1 year; Updated every 5 years	New in 2025 - An updated plan is planned and budgeted for the fiscal year 2025-2026



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
N.4	Flood	Support flood mitigation in the Nipomo area that is under the purview of the County of San Luis Obispo Public Works Department capital projects list to reduce flood hazards in the District, such as the replacement of the Suey Creek Road Bridge to ensure safe access during flooding. Nipomo CSD operations will participate in the project as a stakeholder and help build public support and awareness where needed.	County of SLO Public Works, NCSD Operations	High FEMA Hazard Mitigation Assistance Grant; County General Fund	Medium	5 years	New in 2025 - This would be addressed in the County of SLO Public Work's capital projects list.



M.6 Implementation and Maintenance

Moving forward, the Nipomo Community Services 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 7 of the Base Plan.

M.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 Nipomo CSD's existing plans (e.g., Strategic Plan), as well as in the development of additional local plans, programs, regulations, and policies. Understanding the hazards which 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 Nipomo Community Services District area. As noted in Section 8, the Lead Planning Team representative/s from the Nipomo Community Services 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.

M.6.2 Monitoring, Evaluation and Updating the Plan

The Nipomo Community Services 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 Nipomo CSD 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 N Oceano Community Services District

N.1 District Profile

The Oceano Community Services District was formed in 1981 through a reorganization that combined several existing entities such as the Ocean Fire Protection District, Oceano Beach Lighting District, and the Oceano Sanitary District. The district is overseen by a five-member elected Board of Directors and provides multiple services to approximately 7,600 residents and businesses in Oceano and Halcyon. These services include sewer and water services, street lighting, parks and recreation.

N.1.1 Mitigation Planning History and 2025 Process

This annex was updated in 2025 and is based upon the Local Hazard Mitigation Plan for the Oceano Community Services District created in 2019. While the previous plan has not yet been integrated into local planning mechanisms, the current Water and Sewer CIPs will be using the MJHMP annex to inform projects. Since the last update, there has been an increased prioritization of pursuing grant funds for capital improvements and resiliency of water and sewer systems.

The General Manager of the Oceano Community Services District (OCSD) was the representative for the County HMPC and took the lead for developing the plan and this annex in coordination with the OCSD Local Planning Team (Planning Team). The Planning Team will be responsible for implementation and maintenance of the plan. Table N-1 summarizes OCSD's planning team for the plan revision process.

Table N-1 Oceano CSD Hazard Mitigation Plan Planning Team

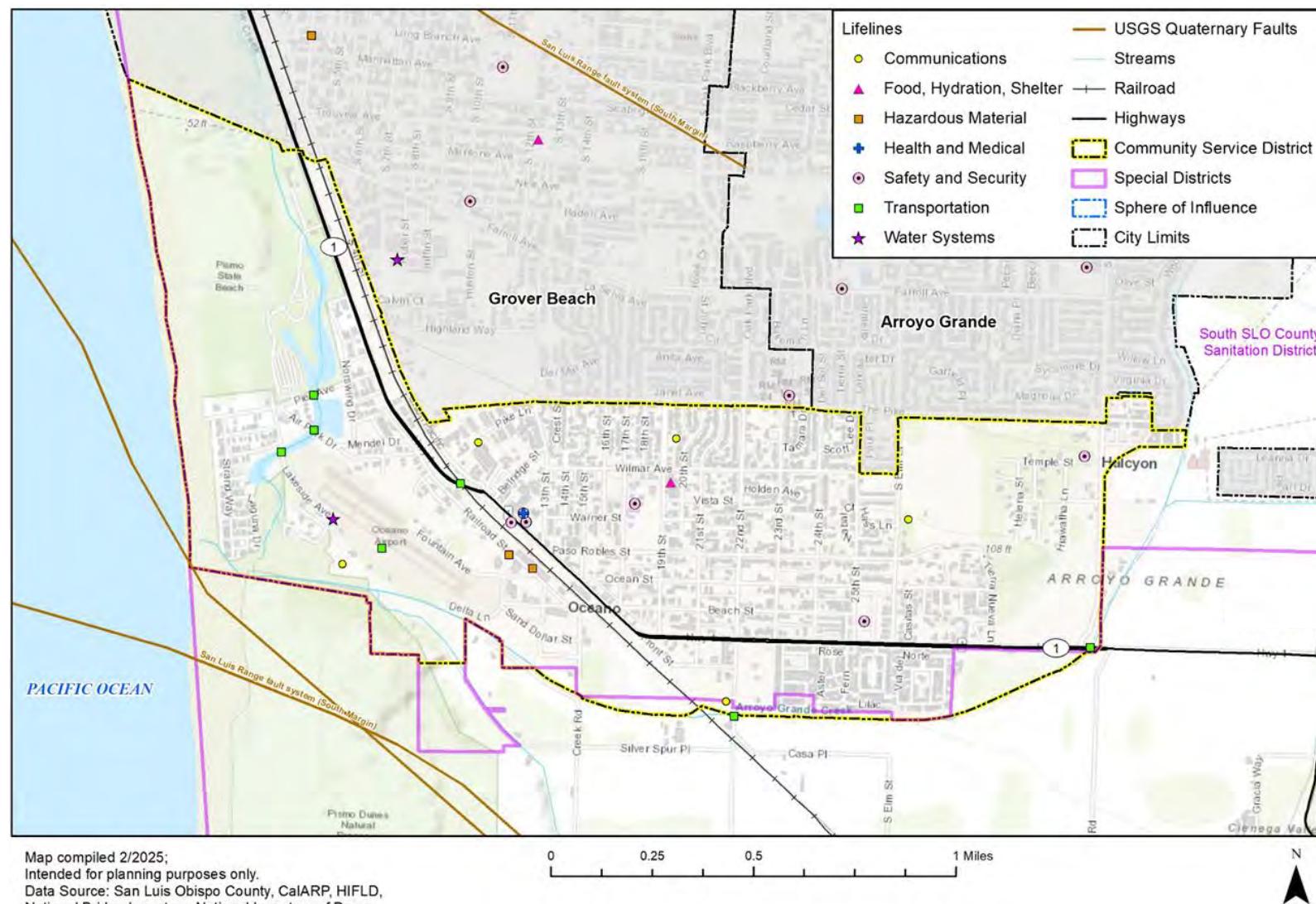
STAKEHOLDER GROUP	DEPARTMENT OR STAKEHOLDER	TITLE
Local Planning Team	Administration	General Manager
	Administration	Accounting and Business Manager
	Operations	Utilities Manager
	Operations	Utility Systems Operator
Agencies involved in hazard mitigation activities	County Public Works	Public Works
	Grover Beach	Public Works Director
	Five Cities Fire Authority	Fire Chief
Agencies that have the authority to regulate development	County Planning and Building Dept	Planner
	Coastal Commission	
Neighboring Communities	County Planning and Building Dept	
	Grover Beach	Public Works Director
	Arroyo Grande	Community Development Director
Representatives of business academia, and other private orgs	South SLO County - Chamber of Commerce	
Representatives supporting underserved communities	5Cities Homeless Coalition	

More details on the planning process 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 N-1 is a map of the larger Oceano community including its sphere of influence and nearby areas.



Figure N-1 Oceano Community Services District





N.1.2 Geography and Climate

Oceano covers a total area of 1.7 square miles, with 1,150 acres of land. Oceano is part of the Five Cities Area, near other cities such as Grover Beach, Arroyo Grande, and Pismo Beach. Oceano is known for its proximity to the Oceano Dunes State Recreation Area, a popular tourist destination for outdoor activities like off-roading and camping.

N.1.3 History

The OCSD was established on January 1, 1981, following voter approval in the November 1980 general election. This formation resulted from the consolidation of several local service entities, including the all-volunteer Oceano Fire Protection District (established in 1947, currently the Five Cities Fire Authority (FCFA)), Oceano Beach Lighting District, Oceano Sanitary District, and County Service Area No. 13. Since the early 2000s, OCSD has focused on improving water and wastewater infrastructure, including upgrades to aging water service lines and the sewage conveyance system, as well as improvements to the treatment plan shared with the Cities of Grover Beach and Arroyo Grande.

N.1.4 Economy

The following tables show how the labor force of the Oceano Community Designated Place (CDP) breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey. In 2023 the most common industry was educational services, and health care and social assistance with (22.7%) of the labor force working in the industry as shown in Table N-2. The unemployment rate is very low at 1.7%, and the most common industries are construction and education as shown in Table N-2, and the most common occupations were those in sales and office occupations as shown in Table N-3.

Table N-2 Oceano CDP Employment by Industry (2023)

INDUSTRY	# EMPLOYEE D	% EMPLOYEE D
Population (16 years and over)	5,756	
In Labor Force	3,443	59.8%
Agriculture, forestry, fishing and hunting, and mining	75	2.3%
Armed Forces	0	0%
Construction	549	16.5%
Manufacturing	261	7.8%
Wholesale trade	60	1.8%
Retail trade	345	10.4%
Transportation and warehousing, and utilities	242	7.3%
Information	31	.9%
Finance and insurance, and real estate and rental and leasing	33	1%
Professional, scientific, and management, and administrative and waste mgmt. services	242	7.3%
Educational services, health care and social assistance	756	22.7%
Arts, entertainment, recreation, and accommodation and food services	410	12.3%
Other services, except public administration	213	6.4%
Public administration	116	3.5%
Unemployed	110	1.7%

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

Note: Data is for the Oceano CDP which may not have the same boundaries as the Oceano Community Service District.

**Table N-3 Oceano CPD Employment by Occupation (2023)**

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (2023)	5,756	
In Labor Force	3,443	59.8%
Management, business, science, and arts occupations	864	36.3%
Service occupations	1,034	14.5%
Sales and office occupations	553	22.7%
Natural resources, construction, and maintenance occupations	482	15.2%
Production, transportation, and material moving occupations	400	11.2%

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

Note: Data is for the Oceano CDP which may not have the same boundaries as the Oceano Community Service District.

N.1.5 Population

According to the American Community Survey, in 2023 Oceano had a population of 7,098. This is a 7.6% decrease from 2018. More information surrounding Oceano demographic and social characteristics are below in Table N-4.

Table N-4 Oceano CDP Demographic and Social Characteristics, 2018-2023

	2018	2023	% CHANGE
Population	7,678	7,098	-7.6%
Median Age	38.9	46.4	+19.3%
Total Housing Units	3,281	3,503	+6.8%
Housing Occupancy Rate	79%	87.7%	+11%
% of Housing Units with no Vehicles Available	3%	5.3%	+76.7%
Median Home Value	\$500,000	\$674,100	+34.8%
Unemployment	4.1%	1.7%	-58.5%
Mean Travel Time to Work (minutes)	23.2	27.5	+18.5%
Median Household Income	\$350,700	\$518,500	+47.8%
Per Capita Income	\$25,657	\$38,764	+51.1%
% of Individuals Below Poverty Level	15.7%	17.1%	+8.9%
# of Households	2,596	3,073	+18.4%
Average Household Size	2.96	2.31	-22%
% of Population Over 25 with High School Diploma	77.8%	79.9%	+2.7%
% of Population Over 25 with Bachelor's Degree or Higher	17.2%	18.6%	+8.1%
% with Disability	15.1%	20.6%	+36.4%

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

Note: Data is for the Oceano CDP which may not have the same boundaries as the Oceano Community Service District.

N.1.6 Development Trends

Constraints on available land have limited development in Oceano, with only 3% of Oceano's land vacant and available. This has resulted in efforts in Oceano focusing on redevelopment rather than new construction. Housing market trends in Oceano show an increase in value, with median home prices increasing by 34.8% in from 2018 to 2023.



In 2020 the Oceano Airport Redevelopment Specific Plan was renamed as an initiative that envisions a mixed-use development with historic and cultural focus west of Highway 1. Flood control measures were incorporated into redevelopment plans for the Oceano Airport area to address infrastructure challenges and to support growth.

In 2023 Oceano proposed to divest from fire protection services due to funding issues and escalating costs of service provisions for the FCFA in relation to property tax revenue. Two ballot measures were proposed to the residents of Oceano but were rejected by voters, failing to receive the required 2/3rds voter approval. The Divestiture was approved by the Local Agency Formation Commission (LAFCO) in December 2024. This transitioned fire protection responsibilities from Oceano to San Luis Obispo County. The agreement for the County to take over fire services in Oceano went into effect in January of 2025. The County now contracts with the FCFA to provide fire responses to the Oceano community through Arroyo Grande and Grover Beach fire stations.

As of 2024, there has been a focus on revitalization efforts throughout the district. Oceano CSD is working on various community improvement projects including capital improvements to both the water and sewer systems, supporting the Oceano Plaza project at 17th and Beach streets, and implementing a grant for field trips to state parks for local schoolchildren. In general the development trends since 2019 have not changed hazard vulnerability.

N.2 Hazard Identification and Summary

The Oceano CSD 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 Oceano CSD (see Table N-5). There are no hazards that are unique to this CSD.

Table N-5 Oceano CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm/ Heavy Rain/ Dense Fog	Significant	Likely	Limited	Medium
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
Biological Agents	Extensive	Occasional	Critical	Medium
Coastal Storm/ Coastal Erosion/ Sea Level Rise	Significant	Occasional	Limited	Medium
Dam Incidents	Limited	Occasional	Critical	Medium
Drought and Water Shortage	Extensive	Likely	Critical	High
Earthquake	Extensive	Occasional	Critical	High
Flood	Significant	Highly Likely	Limited	Medium
Landslide and Debris Flow	Significant	Likely	Critical	Medium
Tsunami	Significant	Occasional	Limited	Medium
Wildfire	Extensive	Likely	Critical	High
Geographic Area	Magnitude/Severity (Extent)			
Limited: Less than 10% of planning area	Catastrophic—More than 50 percent of property severely			



HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
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.	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		

N.3 Vulnerability Assessment

The intent of this section is to assess OCSD's vulnerability separately from that of the county, which has already been assessed in Section 5 Hazard Identification and Risk Assessment (HIRA) in the base plan. This vulnerability assessment analyzes the population, property, and other assets (e.g., critical facilities) at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area.

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 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 Oceano CSD 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 annex may vary slightly due to specific hazard risk and vulnerabilities unique to that jurisdiction. Identifying these differences helps the reader to differentiate OCSD's risk and vulnerabilities from that of the overall County.

N.3.1 Other Hazards

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



- Adverse Weather: Lightning, Freeze
- Subsidence
- Hazardous Materials

N.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.

N.3.2.1 Values at Risk

The following data on property exposure is derived from San Luis Obispo County Assessor's data. This data should only be used as a guideline to overall values in the Community Services District as the information has some limitations. Table N-6 shows the exposure of properties (e.g., the values at risk based on improvement values, content values, and total values as an addition of these two types of values) broken down by property type for the OCSD. Refer to the Base Plan Section 5.2 (HIRA Asset Summary) for more details on value information, content calculations, and overall parcel analysis methodology.

Table N-6 Oceano CSD Total Exposure by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Agricultural	2	\$221,810	\$221,810	\$443,620
Commercial	56	\$21,123,150	\$21,123,150	\$42,246,300
Exempt	17	\$2,028,094	\$2,028,094	\$4,056,188
Industrial	20	\$9,862,011	\$14,793,017	\$24,655,028
Mixed Use	342	\$70,025,062	\$70,025,062	\$140,050,124
Mobile Home	25	\$9,180,804	\$4,590,402	\$13,771,206
Multi-Family Residential	172	\$52,321,738	\$26,160,869	\$78,482,607
Residential	1,439	\$266,499,016	\$133,249,508	\$399,748,524
Vacant Improved	7	\$563,194	\$563,194	\$1,126,388
Total	2,080	\$431,824,879	\$272,755,106	\$704,579,985

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis

N.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.

Table N-7 provides an inventory of critical facilities within the OCSD, compiled using GIS data from San Luis Obispo County and structure information from the Homeland Infrastructure Foundation-Level Dataset (HIFLD). The locations of these facilities is illustrated in Figure N-1.

Table N-7 Oceano CSD Critical Facility Assets Summary by Lifeline

LIFELINE	FACILITY COUNT
Communications	6
Energy	-
Food, Hydration, Shelter	1



LIFELINE	FACILITY COUNT
Hazardous Material	2
Health and Medical	1
Safety and Security	7
Transportation	6
Water Systems	1
Total Count	24

N.3.2.3 Historic and Cultural Resources

The Oceano CSD serves a community that contains several historic and cultural resources within its jurisdictional boundaries. The Oceano Train Depot is a restored 20th century railroad station that now functions as a museum and community space. The OCSD service area is also a part of the ancestral lands of the Chumash people, with known archeological and cultural sites, particularly near the Oceano Dunes and local waterways. Additionally, the community has several older residential and civic structures that may be considered historically significant.

N.3.2.4 Natural Resources

Oceano's natural resources are shaped by its coastal setting and low-lying geography. Within Oceano CSD's boundaries, one of the most prominent natural features is Meadow Creek, which runs through the community and connects to the nearby lagoon and dunes system. This creek is part of a broader watershed and plays a role in local drainage and flood risk. Just west of the district is the Oceano Dunes, part of the larger Guadalupe-Nipomo Dunes complex, which supports rare habitats and species, though much of the protected land lies just outside CSD boundaries. Arroyo Grande Creek is another key natural resource running through the Oceano Community.

N.3.2.5 Economic Assets

One of the most significant economic assets to Oceano CSD is tourism, driven by the nearby Oceano Dunes State Vehicular Recreation Area. Although the dunes themselves are outside the CSD's jurisdiction, visitors often pass through or stay in Oceano, supporting local businesses like vacation rentals, restaurants, and small retail shops. The Union Pacific rail line also runs through Oceano, providing light industrial and transportation connections, though its economic impact on the community is modest.

N.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.

N.3.3.1 Adverse Weather: Thunderstorm/Heavy Rain/Dense Fog

Adverse weather in the Oceano Community Services District includes thunderstorms, heavy rain, and dense fog. The entire property and facility inventory noted in N.3.2, as well as the population, of the Oceano CSD is exposed to the impacts of thunderstorm/heavy rain/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. The overall significance rating of the planning area is **low**. Oceano CSD 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 resulting in public safety hazards but not impacts to structures. 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 Oceano CSD.

Table N-8 Pismo Beach Climate Summary Table – Weather (Adjacent to Oceano, 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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 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 N-9 Pismo Beach Climate Summary Table – Precipitation (Adjacent to Oceano, 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. \geq 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

N.3.3.2 Adverse Weather: High Wind and Tornado

Oceano CSD's risk and vulnerability to this hazard does not differ significantly from that of the County overall significance of **low**. The entire property and facility inventory noted in N.3.2, as well as the population, of the Oceano CSD is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. While these hazards are not common in the region they can occasionally occur during strong storm systems, particularly in the winter months. Oceano 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. Some mobile homes (25) are present



within the district which can be vulnerable to property damage from wind and tornados and may result in impact to inhabitants.

N.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for OCSD. The entire property and facility inventory, as well as the population, of the Oceano CSD is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean maximum fall temperature for Pismo Beach, the closest NOAA weather station to Oceano CSD, is 70.3 °F; however, temperatures up to 103°F have been recorded (see Table N-8). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

In addition to sensitive populations within Oceano, such as low-income households, elderly residents, and outdoor workers, infrastructure within the CSD is also vulnerable to the effects of extreme heat. Increased demand for electricity during heat events can strain the regional energy grid, potentially leading to rolling blackouts that would disrupt critical services, including water and wastewater operations. Additionally, extreme heat elevates evaporation rates and increases water consumption, placing stress on water supplies, especially the surface water and domestic wells from which Oceano sources its water. Given the CSD's limited emergency services capacity, its resources could be overwhelmed during extended or concurrent heat emergencies.

Many of Oceano CDP's homes are older and may lack adequate insulation or air conditioning, making indoor temperatures dangerously high during heat waves. Public infrastructure such as parks and shaded gathering areas is limited, and the community does not currently have a designated cooling center. This presents a challenge for residents who lack climate-controlled environments. Additionally, language barriers and limited internet access can hinder the effectiveness of emergency communication and public health outreach during heat events.

N.3.3.4 Agricultural Pest Infestation and Disease

The LPT gave Oceano a **medium** ranking for agricultural pest infestation and plant disease. The entire property and facility inventory, as well as the population, of Oceano is exposed to the typical impacts of agricultural pest infestation and disease which impact the county as a whole, as discussed in Section 5.3.5.7 of the base plan.

An indicator of plant health and potential monetary damages caused by exposure to disease is tree mortality rates. Reduced numbers of trees or pest infestation of nearby vegetation can also reduce property values and leave surrounding areas highly susceptible to wildfires. Within Oceano there are 467 structures with a total value of over \$174 million, as well as 894 people residing in areas potentially affected by tree mortality. Exact exposure impacts can be found below in Table N-10 Improved Properties Exposed to Tree Mortality Hazard Zones. The land use in Oceano is heavily recreational, with multiple popular surf spots. A disease outbreak or pest infestation that targets oak trees such as Sudden Oak Death could make residential and tourist areas more susceptible to wildfire or landslides. Within Oceano there are 5 critical facilities exposed to tree mortality. Out of these, transportation has the most with 4 facilities. The fifth facility is for communications.

Table N-10 Improved Properties Exposed to Tree Mortality Hazard Zones

STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
467	\$106,380,508	\$68,341,602	\$174,722,110	894

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE, FRAP, TMTF October 2022, WSP GIS Analysis



N.3.3.5 Biological Agents (Naturally Occurring)

The Oceano LPT gave biological agents a **medium** overall significance rating. Oceano's risk and vulnerability to this hazard does not differ substantially from that of the county's overall. The entire property and facility inventory, as well as the population, of Oceano is exposed to the typical impacts of biological agents which impact the county as a whole, as discussed in Section 5.3.6.7 of the base plan.

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.

N.3.3.6 Coastal Storm/Coastal Erosion/Sea Level Rise

Oceano CSD faces significant risks from coastal storms, erosion, and sea level rise due to its low-lying topography and proximity to the Pacific Ocean. The community has experienced repeated flooding events, notably in January 2023, when the lift station near Pier Avenue suffered from sea and stormwater intrusions during high tides and major rain events. These incidents, which also occurred multiple times in 2022 and 2023, overwhelmed the lift station's capacity, leading to operational challenges and multiple closures of Pier Avenue, disrupting local transportation and access to businesses. Maintenance and Operations staff have identified the lift station as highly vulnerable, emphasizing the need for relocation, reconstruction, or fortification to prevent future failures. Given its exposure to tidal and stormwater influences, this type of flooding is likely to occur again.

When combined with extreme storms and higher tides, sea level rise will result in accelerated cliff and bluff erosion, increased coastal flooding, and flooding from groundwater. Sea level rise will increase the frequency of coastal flooding events, which occur when sea level rise amplifies short-term elevated water levels associated with higher tides, large storms, El Niño events, or when large waves coincide with high tides. These conditions pose significant threats to Oceano CSD's infrastructure, including wastewater conveyance facilities and transportation routes, as well as the South San Luis Obispo County Sanitation District treatment plant. The community's vulnerability is further increased by its status as a disadvantaged community, underscoring the urgency for proactive mitigation and adaptation strategies to enhance resilience against these escalating coastal hazards.

Oceano CSD has been ranked as **medium** significance for this hazard. 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.

Values at Risk

Analysis of the data reveals that sea level rise, particularly when combined with a 1% annual chance flood event, poses a significant risk to properties and property values in Oceano CSD. While no parcels are projected to be impacted under the 25 cm or 75 cm sea level rise scenarios alone, the impacts sharply escalate under the 300 cm scenario, which shows 265 properties at risk from sea level rise alone, and 296 parcels at risk when combined with a 1% annual chance flood event. The most affected categories include 203 residential parcels and 11 commercial parcels under sea level rise alone, with totals increasing to 222 and 14 respectively when flood conditions are added.

The associated property value at risk climbs accordingly, with over \$54 million in improved value exposed under the 300 cm sea level rise scenario and more than \$64 million at risk when combined with a 1% flood. Residential properties account for the majority of that value, followed by mixed-use and commercial structures. This analysis highlights that long-term coastal impacts are not theoretical—they represent tangible economic and structural



vulnerabilities, especially for a disadvantaged community like Oceano, where the capacity to recover from repeated flood or sea level rise events may already be strained.

Table N-11 Oceano CSD Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/ 1% FLOOD	75-CM SLR W/ 1% FLOOD	300-CM SLR W/ 1% FLOOD
Agricultural	-	-	1	-	-	1
Commercial	-	-	11	-	-	14
Exempt	-	-	4	-	-	4
Industrial	-	-	5	-	-	7
Mixed Use	-	-	28	-	-	32
Mobile/Manufactured Homes	-	-	1	-	-	1
Multi-Family Residential	-	-	12	-	-	15
Residential	-	-	203	-	-	222
Total	0	0	265	0	0	296

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Table N-12 Oceano CSD Improved Values of Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/ 1% FLOOD	75-CM SLR W/ 1% FLOOD	300-CM SLR W/ 1% FLOOD
Agricultural	-	-	\$184,841	-	-	\$184,841
Commercial	-	-	\$1,826,254	-	-	\$3,590,019
Exempt	-	-	\$0	-	-	\$0
Industrial	-	-	\$1,783,655	-	-	\$2,363,655
Mixed Use	-	-	\$6,124,296	-	-	\$6,593,693
Mobile/Manufactured Homes	-	-	\$319,374	-	-	\$319,374
Multi-Family Residential	-	-	\$3,821,977	-	-	\$6,187,803
Residential	-	-	\$40,382,354	-	-	\$45,693,308
Total	\$0	\$0	\$54,442,751	\$0	\$0	\$64,932,693

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Populations at Risk

Table N-13 shows the Oceano CSD affected populations potentially inundated by sea level rise and sea level rise with 1% annual chance flood by FEMA lifeline, below.

Table N-13 Oceano CSD Population Exposed to Sea Level Rise Scenario Hazards

COMMUNITY CSD	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/ 1% FLOOD	75-CM SLR W/ 1% FLOOD	300-CM SLR W/ 1% FLOOD
Oceano CSD	-	-	534	-	-	588
Total	-	-	534	-	-	588

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis



Analysis of Table N 13 shows that sea level rise, particularly at more extreme scenarios, presents a serious threat to population exposure within Oceano CSD. While there is no projected population impact under the 25 cm or 75 cm sea level rise scenarios, that changes significantly at 300 cm, where 534 residents are at risk from sea level rise alone. When combined with a 1% annual chance flood, the number rises to 588. This indicates that over 500 people could be directly affected by flooding and coastal inundation in a high sea level rise future, emphasizing the vulnerability of the district's low-lying residential areas. Given Oceano's designation as a disadvantaged community, this level of exposure raises public safety concerns, especially around evacuation access, infrastructure resilience, and the capacity to recover from such events.

Critical Facilities at Risk

Table N-14 shows Oceano CSD critical facilities inundated by sea level rise and sea level rise with 1% annual chance flood by FEMA lifeline, below.

Table N-14 Oceano CSD Critical Facilities Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood by FEMA Lifeline

FEMA LIFELINE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Communications	-	-	2	-	-	2
Energy	-	-	-	-	-	-
Food, Hydration, Shelter	-	-	-	-	-	-
Hazardous Material	-	-	1	-	-	1
Health and Medical	-	-	-	-	-	-
Safety and Security	-	-	-	-	-	-
Transportation			4			4
Water Systems	-	-	1	-	-	1
Total	-	-	8	-	-	8

Source: San Luis Obispo County, USGS CoSMoS v3.1, CalARP, HIFLD, NBI, NID, WSP Analysis

Analysis indicates that critical facilities within Oceano CSD become increasingly vulnerable under the 300 cm sea level rise scenario and the combined 300 cm sea level rise with 1% annual chance flood. At this threshold, a total of eight critical assets are projected to be inundated. These include two communications facilities, one hazardous material site, one drinking water system asset, and four transportation-related facilities. No facilities are exposed at the 25 cm or 75 cm sea level rise levels, reinforcing that the most significant threats emerge under higher-end projections. The loss or impairment of these facilities, particularly those tied to communications and hazardous materials, could severely disrupt emergency response, public health, and mobility during high-impact flood events. This highlights the importance of long-term planning for coastal infrastructure resilience in Oceano, especially as sea levels rise and storm surge events intensify.

Figure N-2 and Figure N-3 show Oceano CSD sea level rise with tidal inundation only and tidal inundation with the 1% annual chance (100-year) zone.



Figure N-2 Oceano CSD Sea Level Rise with Tidal Inundation and 1% Annual Chance (100 -year) Zone

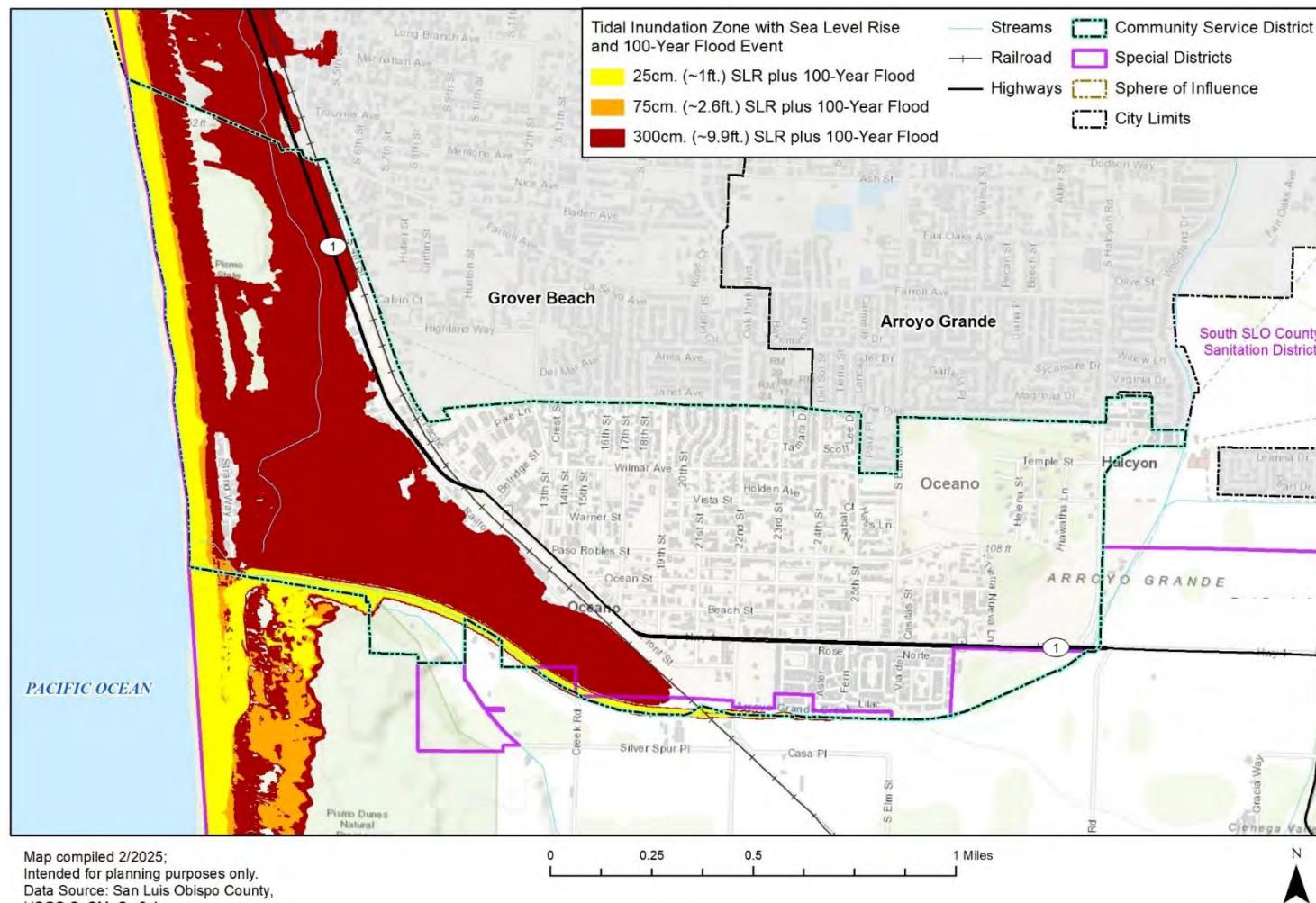
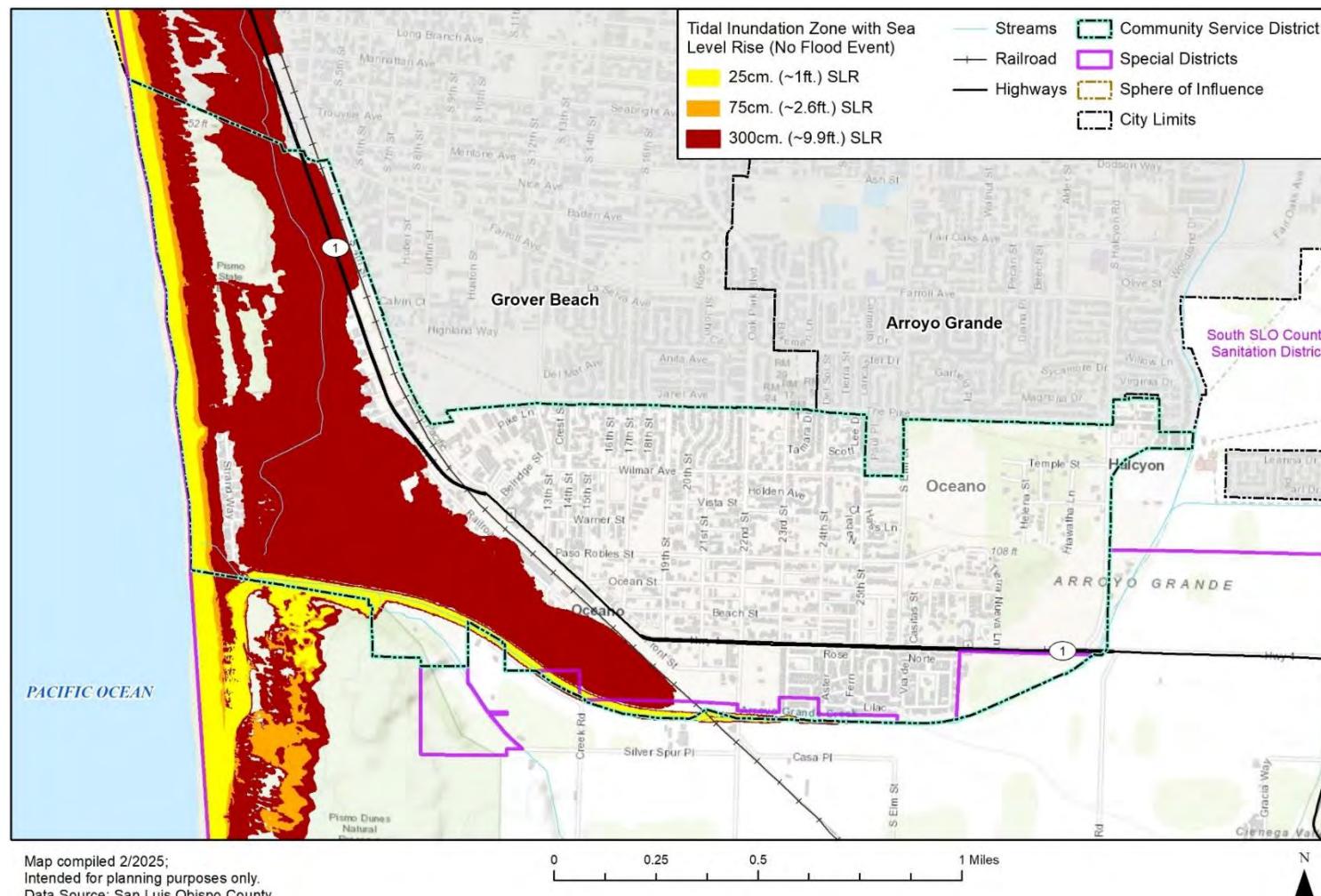




Figure N-3 Oceano CSD Sea Level Rise Tidal Inundation Only



Map compiled 2/2025;
Intended for planning purposes only.
Data Source: San Luis Obispo County
USGS CoSMoS v3.1
Note: SLR = Sea Level Rise



N.3.3.7 Dam Incidents

The Oceano CSD rated dam incident a **medium** significance hazard. The District is downstream from Terminal Dam at the water treatment plant and Lopez Dam two miles further upstream on Arroyo Grande Creek. Terminal Dam is an earth fill dam that holds 844 acre-feet of water, located northeast of the District. This dam presents a considerable hazard to Oceano, the potential inundation zone is shown in blue hatching in Figure N-4.

The Lopez Dam is an earth-fill dam that holds over 60 times more water than Terminal Dam, nearly 50,000 acre-feet of water, and is located less than ten miles upstream from Oceano. The Lopez Dam presents a considerably greater hazard to the District than Terminal Dam. A very large portion of the District is within the inundation zone of Lopez Dam (Figure N-4).

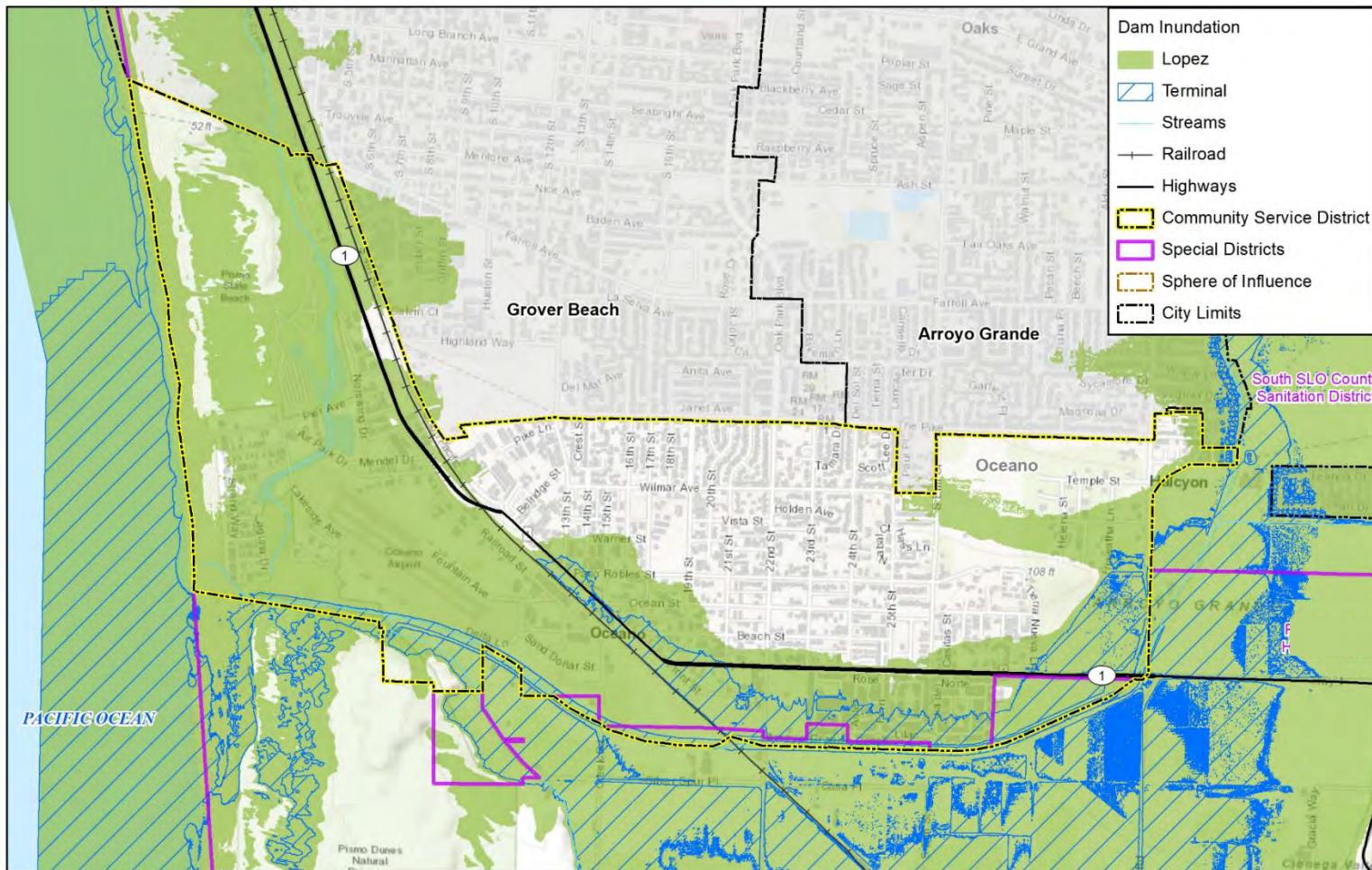
Failure of Lopez Dam would cause water to flow along Arroyo Grande Creek in a westerly direction, extending laterally up to 3,000 feet in each direction of the centerline of the creek channel. The inundation would hit Oceano particularly hard. As floodwaters approach the coast, the stream channel becomes constricted, which would force water to flow up Meadow Creek to the north, inundating most of the western end of the District, before spilling west to the ocean.

A total of 680 structures and 1,235 people in the Oceano CSD exist in the Lopez Dam inundation zone (Table N-15). Notably, 13 pieces of critical infrastructure exist within the dam inundation zone (Table N-16), including the South San Luis wastewater treatment plant, the Oceano Senior Center, the Oceano County Airport, and several bridges. Appendix E provides additional detail of critical facilities at risk from dam inundation hazards.

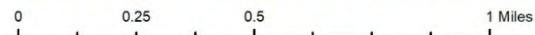
A failure of the Lopez Dam would also affect Highway 101 impeding or reducing flows of goods, people and resources into and out of Oceano and potentially impacting the entire region. There have been no past dam incidents or failures in the jurisdiction of the Oceano or anywhere in the South County. Refer to Section 5.3.8 *Dam Incidents* of the Base Plan for additional discussion on the potential impacts of dam incidents in the County



Figure N-4 Oceano CSD Dam Inundation Zones near Oceano CSD



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)



**Table N-15 People and Structures in Oceano CSD Within the Modeled Dam Inundation Zone**

PROPERTY TYPE	STRUCTURE COUNT	POPULATION
Agricultural	1	-
Commercial	46	-
Exempt	10	-
Industrial	15	-
Mixed Use	104	-
Mobile/Manufactured Homes	11	27
Multi-Family Residential	48	119
Residential	441	1,089
Vacant Improved	4	-
Total	680	1,235

Source: San Luis Obispo Assessor Data November 15, 2024, Division of Safety of Dams, Department of Water Resources, WSP GIS Analysis

Table N-16 Critical Facility Assets Exposed to Dam Inundation in Oceano CSD by FEMA Lifeline

COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
3	-	-	2	-	1	6	1	13

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

N.3.3.8 Drought and Water Shortage

The OCSD sources its water from three primary sources: groundwater, surface water from Lopez Lake, and allotments from the State Water Project (SWP). The CSD operates wells that extract groundwater from local aquifers. In recent years, the CSD has installed deeper wells to access higher-quality water, aiming to mitigate potential quality deterioration. The CSD receives a designated allotment of water from Lopez Lake, which is managed by the San Luis Obispo County Flood Control and Water Conservation District. Additionally, the CSD supplements its supply with allocations from the SWP, as provided under terms of water supply contracts with the County of San Luis Obispo Flood Control and Water Conservation District.

The CSD's infrastructure includes groundwater wells, distribution pipelines, and related facilities. The CSD additionally provides sewage conveyance, solid waste/recycling organics hauling and a streetlight system. As stated in the Flood section, high tide and stormwater surges overwhelmed a lift station in 2022 and 2023, leading to excessive water inflow, which prevented the pumps from functioning effectively. This caused flooding and closures on Pier Avenue, highlighting the vulnerability of the lift station's location and the need for fortification, reconstruction, or relocation.

OCSD faces significant challenges during drought conditions, particularly regarding water supply and quality. Prolonged dry periods put both SWP allocations and groundwater from the Santa Maria Groundwater Basin at risk. Reduced SWP deliveries during droughts force increased reliance on groundwater pumping, which raises concerns about overdraft and



potential saltwater intrusion. Additionally, declining water levels can lead to higher concentrations of contaminants, necessitating costly water treatment measures. The financial burden of securing alternative water sources or implementing conservation programs may also result in higher water rates for residents and businesses, disproportionately affecting low-income households and other vulnerable populations.

Drought conditions also place critical infrastructure at risk, particularly the wastewater system, which relies on sufficient water flow for effective treatment processes. Lower water availability can lead to increased waste concentration, putting additional strain on treatment facilities. Oceano's fire protection services could also be compromised if drought-induced low water pressure limits firefighting capabilities.

Drought was rated as a **high significance** hazard for the CSD. As Oceano is a disadvantaged community, the CSD needs to be well-prepared to increase resiliency related to water and sewer utilities. There is an increased desire to pursue grant funds for capital improvements and resiliency as related to water and sewer systems. As such, OCSD is updating their capital improvement programs for both their water and sewer systems in 2025.

N.3.3.9 Earthquake

The Oceano CSD is vulnerable to various types of seismic hazards including fault rupture, ground shaking and liquefaction. According to the district's 2019 LHMP, the only known mapped fault in the vicinity of Oceano is the Oceano fault. Although the fault is classified as potentially active by CGS, review of the Oceano fault suggests that the fault is inactive. The Oceano fault presents a very low fault rupture hazard to Oceano. Other mapped faults within the South County area include the potentially active Wilmar Avenue fault and the inactive Pismo fault. Beyond these very local faults, the district is exposed to seismic hazards from movement along several regional faults and is at more or less the same level of risk for damage as other communities in San Luis Obispo County from ground shaking triggered by any earthquakes that impact the county.

Due to its coastal location and geology underlaid with dunes and sand, liquefaction is a more pressing concern. As shown in the figure below, the entirety of the Oceano CSD is underlaid by liquefiable soils that are rated as posing moderate or high risk. The following tables (Table N-17 and Table N-18) display the types and values of properties and the types of critical facilities located in moderate or high liquefaction risk areas. Based on this analysis there are 2,080 properties exposed to liquefaction risk with a total value of over \$704 million. Residential properties are the most vulnerable property type to liquefaction in Oceano, with a combined total of 1,636 properties (including multi-family residential and mobile homes) with a total value of over \$491.8 million. Every critical facility in the community is also exposed to moderate liquefaction risk, summarized below.

**Table N-17 Oceano CSD's Improved Properties Exposed to Liquefaction Potential by Property Type**

PROPERTY TYPE	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	STRUCTURE COUNT LOW	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	-	2	-	2	\$221,810	\$221,810	\$443,620	-
Commercial	8	48	-	56	\$21,123,150	\$21,123,150	\$42,246,300	-
Exempt	-	17	-	17	\$2,028,094	\$2,028,094	\$4,056,188	-
Industrial	-	20	-	20	\$9,862,011	\$14,793,017	\$24,655,028	-
Mixed Use	3	339	-	342	\$70,025,062	\$70,025,062	\$140,050,124	-
Mobile/ Manufactured Homes	1	24	-	25	\$9,180,804	\$4,590,402	\$13,771,206	62
Multi-Family Residential	10	162	-	172	\$52,321,738	\$26,160,869	\$78,482,607	425
Residential	106	1,333	-	1,439	\$266,499,016	\$133,249,508	\$399,748,524	3,554
Vacant Improved	-	7	-	7	\$563,194	\$0	\$563,194	-
Total	128	1,952	0	2,080	\$431,824,879	\$272,191,912	\$704,016,791	4,041

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

Table N-18 Critical Facility Assets Exposed to Liquefaction Susceptibility by FEMA Lifeline

LIQUEFACTION SUSCEPTIBILITY	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Medium Liquefaction Susceptibility	6	-	1	2	1	7	6	1	24

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



Figure N-5 Oceano CSD Critical Facilities, USGS Quaternary Faults, and Alquist-Priolo Earthquake Fault Zones

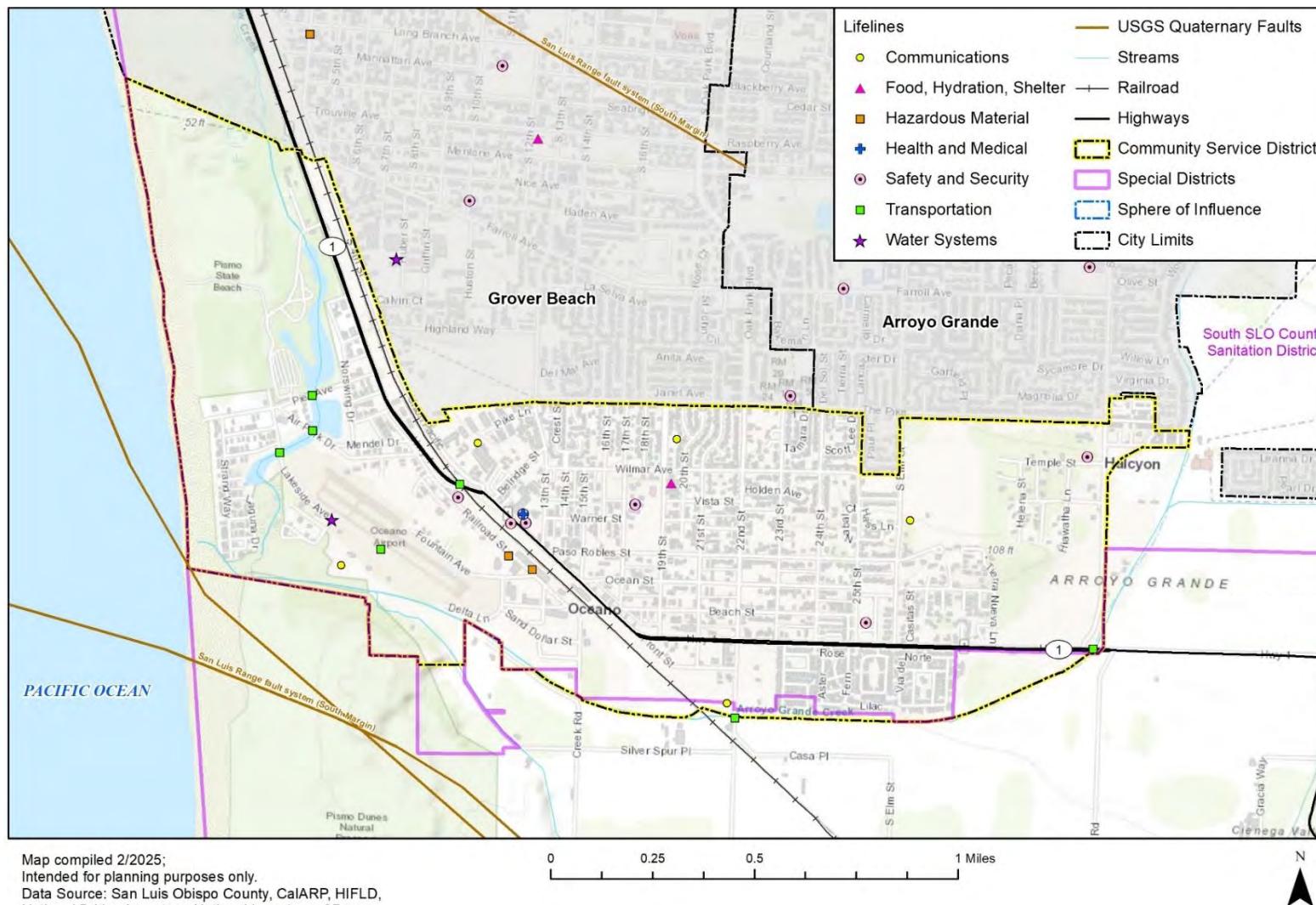
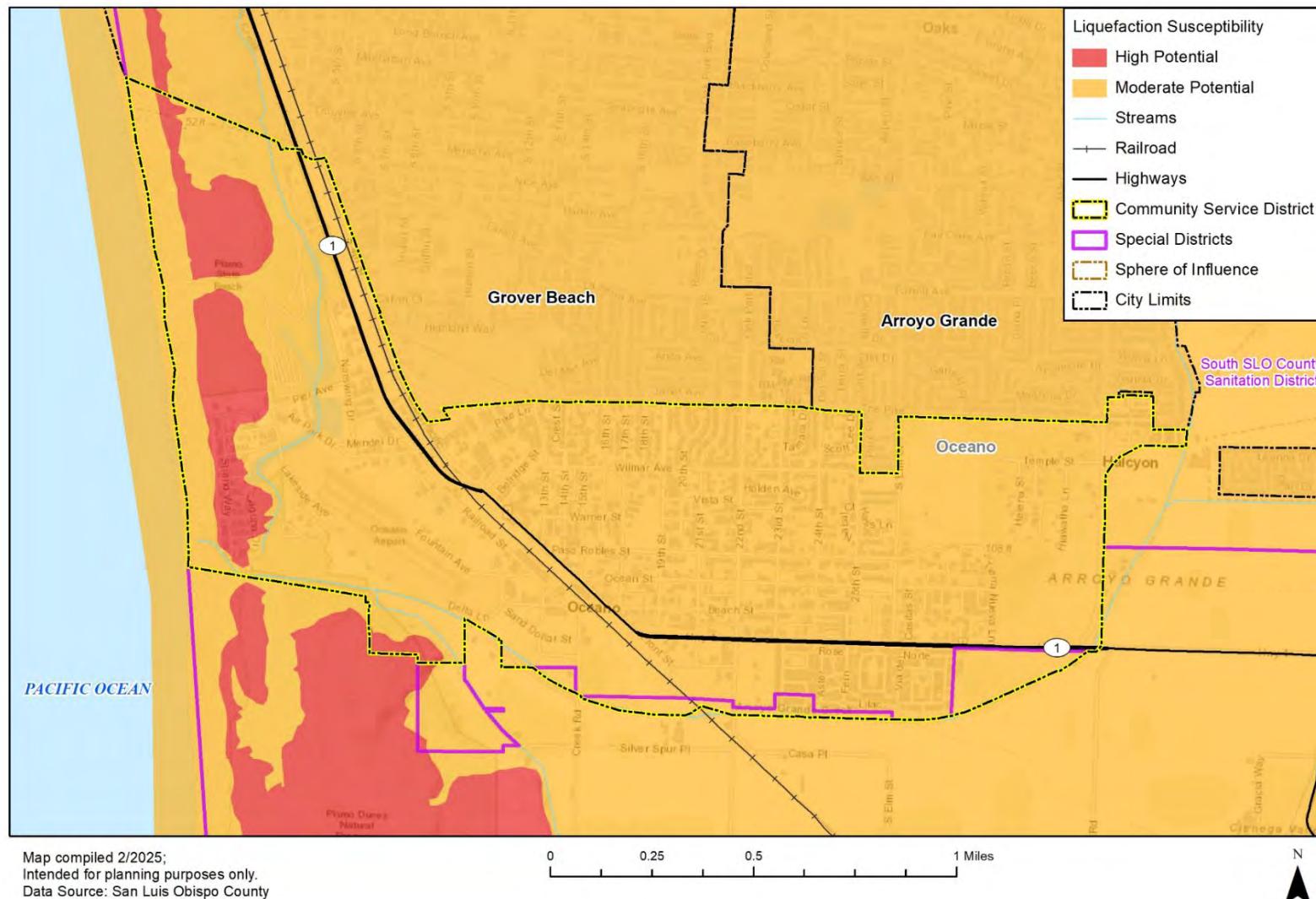




Figure N-6 Liquefaction Risk in the Oceano CSD





N.3.3.10 Flood

Oceano CSD, situated along California's Central Coast, faces significant flood risks due to its low-lying topography, proximity to the Pacific Ocean and to Arroyo Grande Creek. Historical records indicate that flooding has been a recurring issue in the area, with notable events causing substantial damage to infrastructure and property.

A particularly vulnerable asset within the district is the lift station located near 393 Pier Avenue. This facility has experienced repeated flooding during high tide and major rain events, notably in January 2023, leading to operational challenges and temporary closures of Pier Avenue, thereby disrupting local transportation and access to businesses. The CSD Maintenance and Operations staff have identified this lift station as susceptible to tidal and stormwater intrusions, emphasizing the need for its relocation, reconstruction, or fortification to prevent future failures. Design is underway to address the vulnerability of this lift station.

The community's susceptibility to flooding is further exacerbated by its geographical characteristics. The area's flat terrain and inadequate drainage infrastructure contribute to the accumulation of stormwater, increasing the risk of inundation during heavy rainfall events. Moreover, the presence of mobile home parks adjacent to the creek levee along Highway 1 highlights the potential for significant impacts on vulnerable populations.

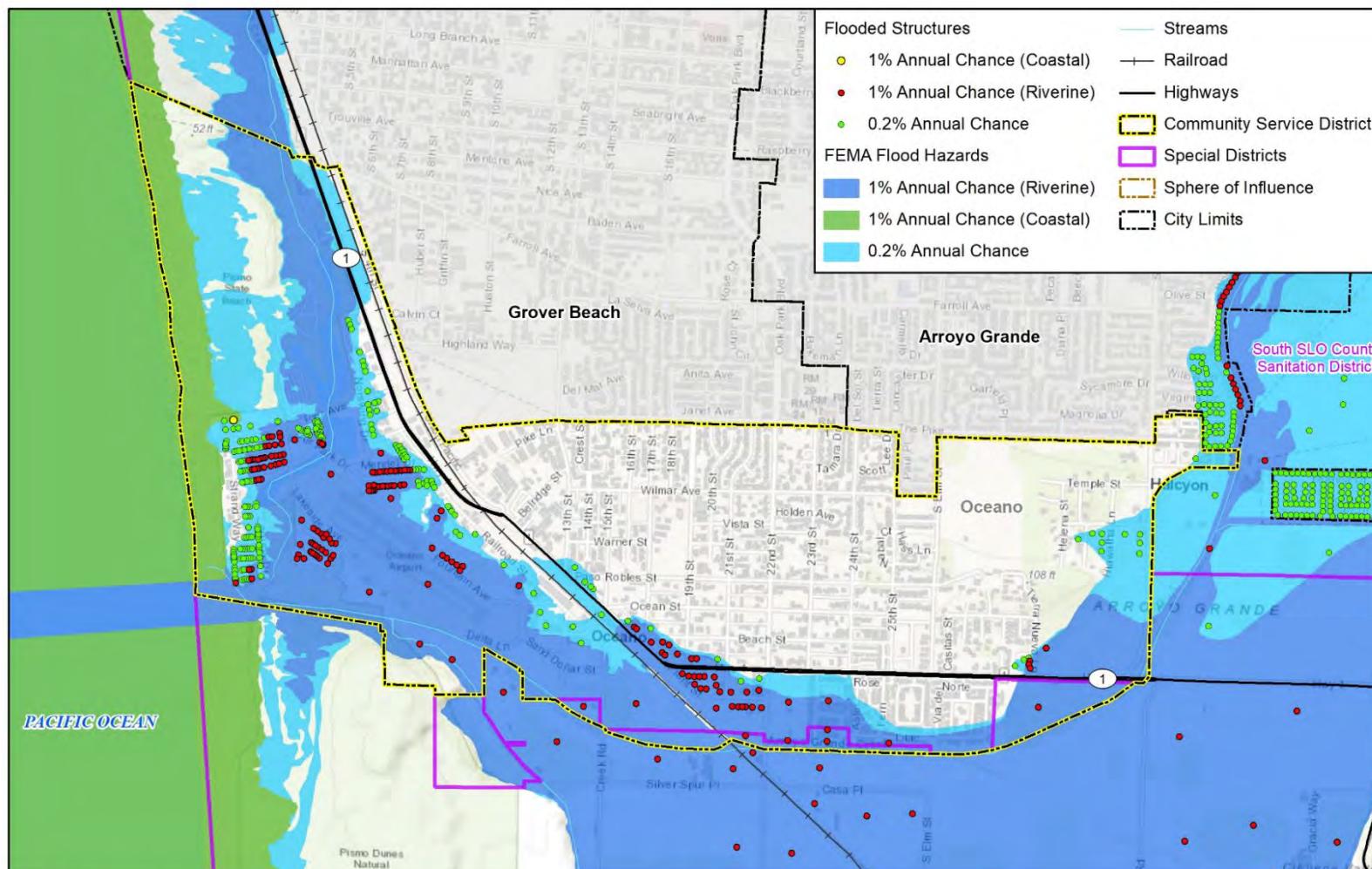
In response to these challenges, Oceano CSD has undertaken initiatives aimed at enhancing resilience to flooding. Projects such as the bioretention and stormwater capture system at Oceano Elementary School have been implemented to improve stormwater management and reduce runoff. Additionally, the CSD continues to collaborate with sister-agencies to develop comprehensive flood control strategies tailored to the unique needs of the Oceano community.

Given the increasing frequency and intensity of storm events, it is imperative for Oceano CSD to prioritize infrastructure improvements and community preparedness measures. By addressing existing vulnerabilities and investing in adaptive strategies, the CSD can better safeguard its residents, infrastructure, and natural resources against future flooding events.

Figure N-7, below, shows Oceano CSD DWR and FEMA flood hazards along with flooded structures.



Figure N-7 Oceano CSD DWR & FEMA Flood Hazards with Flooded Structures



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



The planning team has ranked flood as a **medium** significance hazard for Oceano CSD. For additional context and a countywide flood hazard assessment, refer to Section 5.3.8 of the Base Plan.

Values at Risk

Table N-19 and Table N-20 show parcels and populations at risk within the 1% and 0.2% annual chance flood zones. Within the Oceano CSD, flood hazard modeling reveals substantial financial exposure in both the 1% and 0.2% annual chance flood zones. In the 1% annual chance floodplain, 158 parcels represent over \$55 million in total value at risk, with an estimated \$13.8 million in potential losses. These parcels span residential, mobile/manufactured homes, multi-family units, and commercial and industrial properties, highlighting a mix of housing and economic infrastructure at risk. Exposure increases significantly in the 0.2% annual chance flood area, where 226 parcels account for nearly \$95 million in value and more than \$23.7 million in potential losses—primarily due to residential and commercial properties clustered in vulnerable areas.

Table N-19 Parcels and Populations in 1% Annual Chance Flood Hazard Areas in the Oceano CSD

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Agricultural	1	\$184,841	\$184,841	\$369,682	\$92,421	-
Commercial	15	\$4,646,704	\$4,646,704	\$9,293,408	\$2,323,352	-
Exempt	5	\$75,802	\$75,802	\$151,604	\$37,901	-
Industrial	3	\$1,548,050	\$2,322,075	\$3,870,125	\$967,531	-
Mixed Use	24	\$3,287,397	\$3,287,397	\$6,574,794	\$1,643,699	-
Mobile/Manufactured Homes	4	\$2,632,448	\$1,316,224	\$3,948,672	\$987,168	10
Multi-Family Residential	7	\$2,388,077	\$1,194,039	\$3,582,116	\$895,529	17
Residential	97	\$18,266,267	\$9,133,134	\$27,399,401	\$6,849,850	240
Vacant Improved	2	\$68,744	\$0	\$68,744	\$17,186	-
Total	158	\$33,098,330	\$22,160,215	\$55,258,545	\$13,814,636	267

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Table N-20 Parcels and Populations in 0.2 Annual Chance Flood Hazard Areas in the Oceano CSD

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Commercial	20	\$9,642,324	\$9,642,324	\$19,284,648	\$4,821,162	-
Exempt	1	\$19,713	\$19,713	\$39,426	\$9,857	-
Industrial	6	\$1,744,308	\$2,616,462	\$4,360,770	\$1,090,193	-
Mixed Use	23	\$4,956,572	\$4,956,572	\$9,913,144	\$2,478,286	-
Mobile/Manufactured Homes	2	\$528,788	\$264,394	\$793,182	\$198,296	5
Multi-Family Residential	7	\$2,100,551	\$1,050,276	\$3,150,827	\$787,707	17
Residential	167	\$38,267,375	\$19,133,688	\$57,401,063	\$14,350,266	412
Total	226	\$57,259,631	\$37,683,428	\$94,943,059	\$23,735,765	435

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis



Populations at Risk

The flood risk also affects a sizable number of residents. Within the 1% floodplain, an estimated 267 people are potentially impacted, many living in traditional single-family homes, mobile homes, or multi-family structures. The population exposed in the 0.2% zone rises to 435, indicating that deeper and more widespread flood events could disrupt hundreds of lives. While property loss estimates are higher in the commercial sector, the greatest population impact is concentrated in residential zones, reinforcing the need for both structural and community-level mitigation strategies.

Critical Facilities at Risk

Table N-21 shows critical facility assets exposed to 1% flood hazards by FEMA lifelines.

Table N-21 Oceano CSD Critical Facility Assets Exposed to 1% Flood Hazards by FEMA Lifelines

COMMUNITY SERVICE DISTRICT	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Oceano	3	-	-	-	-	-	5	1	9
Total	3	-	-	-	-	-	5	1	9

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

Within the Oceano CSD, nine critical facilities fall within the 1% annual chance floodplain, underscoring the community's infrastructure vulnerability to significant flood events. These include three communications facilities, five transportation-related assets, and one drinking water system facility. The concentration of transportation infrastructure at risk is particularly concerning given Oceano's low-lying topography and the known history of street closures during past flood events, such as on Pier Avenue. Additionally, one hazardous materials facility is located within the 0.2% annual chance floodplain, presenting potential public safety and environmental risks should more extensive flooding occur. The location of these facilities within flood hazard zones emphasizes the importance of targeted mitigation planning to ensure service continuity and reduce operational disruptions during future events.



N.3.3.11 Landslides and Debris Flow

Landslide and debris flow hazards have been rated by the Oceano Planning Team as a **Medium Significance** hazard. There are 34 structures exposed to landslide potential as shown in Table N-22 below. These structures have a total value of over \$26 million, with 28 of these structures for residential use. Oceano has 24 critical facilities exposed to low landslide potential. The atmospheric river event that took place on January 9, 2023 greatly affected Oceano, with mudslides and debris flow wrecking homes and businesses and leaving residents stranded. The damages spanned from Oceano to Los Osos, with over 23 miles of destruction.

Table N-22 Oceano CSD Improved Properties Exposed to Landslide Potential by Property Type

PROPERTY TYPE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	1	\$815,007	\$815,007	\$1,630,014	-
Industrial	1	\$564,645	\$846,968	\$1,411,613	-
Mixed Use	1	\$645,048	\$645,048	\$1,290,096	-
Mobile/Manufactured Homes	1	\$270,632	\$135,316	\$405,948	2
Multi-Family Residential	2	\$836,631	\$418,316	\$1,254,947	5
Residential	28	\$13,344,125	\$6,672,063	\$20,016,188	69
Total	34	\$16,476,088	\$9,532,717	\$26,008,805	77

While no previous hazard occurrences have been noted, based on historical data for the County and given the presence of landslide-susceptible geology and steep slopes nearby, landslide hazards are likely to continue on an annual basis, though damaging landslides are not expected for the District. However, GIS overlay analysis of these landslide potential layers and the parcel data broken by type show that 34 parcels are exposed to low landslide hazard areas. Twenty-four critical facilities are found to overlap with low landslide potential areas across Oceano.

A moderate to major possible landslide event along Highway 101, or an event which affected this major road into or out of the CSD, could have serious impacts on both visitors and locals in terms of road closures or maintenance. For more details on the landslide and debris flow hazards in terms of background information or analysis results for the entire County, refer to Section 5.3.9 of the Base Plan.

N.3.3.12 Tsunami

Tsunami inundation poses a risk to all coastal communities in the San Luis Obispo County. Offshore faults and related seismic activity could generate a tsunami event off the coast of Oceano, even if the fault rupture occurs thousands of miles away. Historically, significant tsunamis on the Central Coast of California have been infrequent. Only a few incidents have been recorded, and the historical record is not extensive enough to develop an accurate prediction for the pattern of recurrence. The potential tsunami hazard for the City's coastal areas is greatest for those communities or portions of communities that are located at or below 50 feet above mean sea level. Figure N-8 below illustrates those areas of the district most at risk. Refer to Section 5 of the Base Plan for more information related to the past tsunami events and analysis on future vulnerability.

The following table breaks down the tsunami risk for the Oceano CSD by property type.

**Table N-23 Oceano Improved Properties Exposed to Tsunami Hazard Areas by Property Type**

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	1	\$184,841	\$184,841	\$369,682	-
Commercial	18	\$4,882,533	\$4,882,533	\$9,765,066	-
Exempt	4	\$0	\$0	\$0	-
Industrial	11	\$3,757,240	\$5,635,860	\$9,393,100	-
Mixed Use	41	\$7,450,959	\$7,450,959	\$14,901,918	-
Mobile/Manufactured Homes	1	\$319,374	\$159,687	\$479,061	2
Multi-Family Residential	21	\$8,226,888	\$4,113,444	\$12,340,332	52
Residential	309	\$74,745,627	\$37,372,814	\$112,118,441	763
Vacant Improved	1	\$11,260	\$0	\$11,260	-
Total	407	\$99,578,722	\$59,800,138	\$159,378,860	818

Source: San Luis Obispo Assessor Data November 15, 2024, California Geological Survey, Dept. of Conservation, WSP GIS Analysis

Table N-24 Critical Facility Assets Exposed to Tsunami Hazard Areas by FEMA Lifelines, Oceano CSD

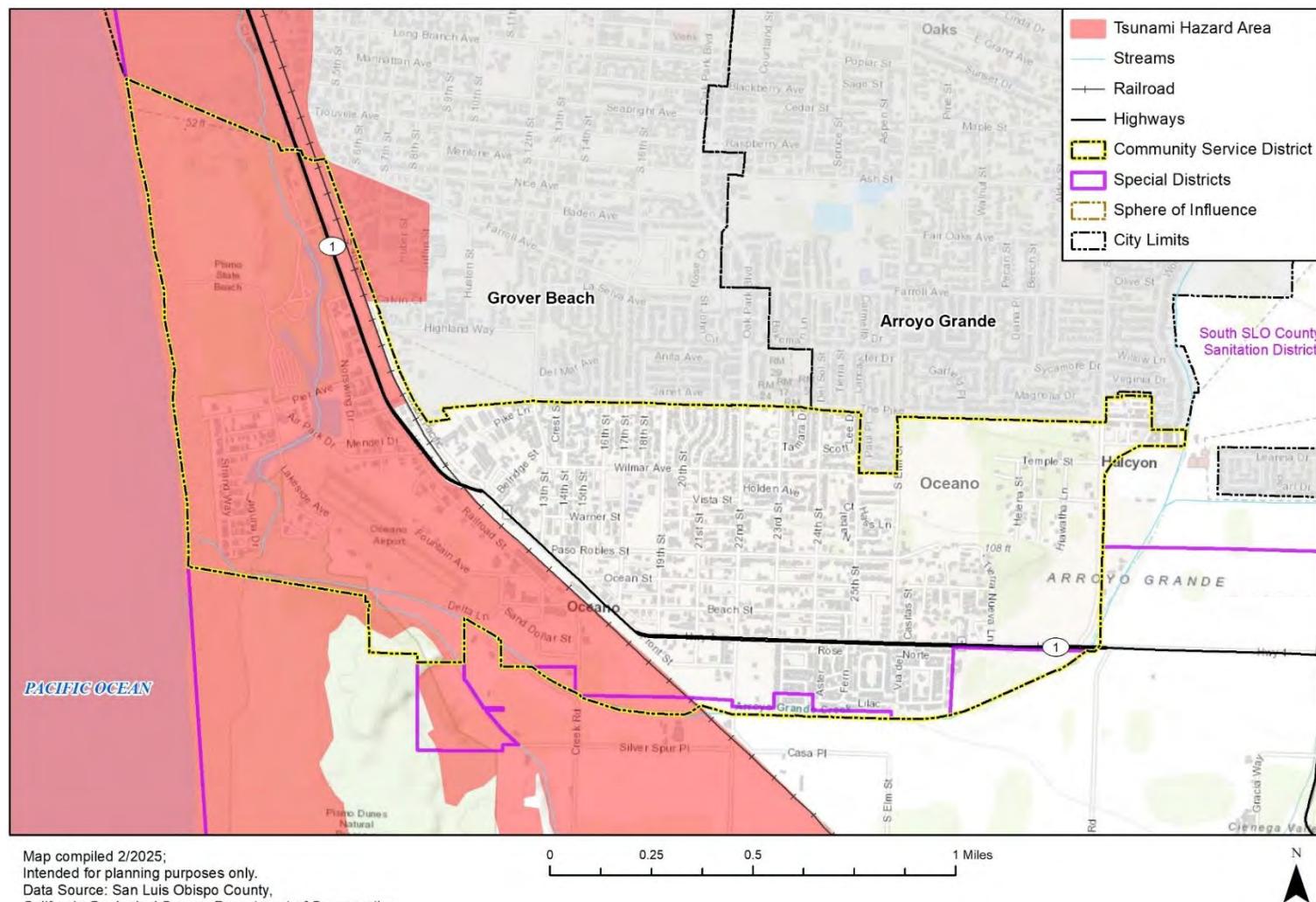
FEMA LIFELINE CATEGORY	NUMBER OF FACILITIES
Communications	2
Energy	0
Food, Hydration, Shelter	0
Hazardous Materials	2
Health and Medical	0
Safety and Security	1
Transportation	4
Water Systems	1
TOTAL	10

Source: San Luis Obispo County, California Geological Survey, Dept. of Conservation, CalARP, HIFLD, NBI, NID, WSP Analysis

Based on this analysis the majority of land in the district between Highway 1 and the coast is at a significant risk to a tsunami event. There are 407 structures vulnerable to the impacts of a tsunami, with a combined value of over \$159.4 million. Of the properties at risk, 331 are residential properties with a combined loss estimate of over \$124.5 million. Critical Facilities were also overlaid with the tsunami inundation layers in GIS. This analysis yielded a total of 10 facilities found at risk, the majority of these being within the Transportation Community Lifeline. These are listed in Table N-24.



Figure N-8 Oceano CSD Tsunami Hazard Area





N.3.3.13 Wildfire

The County of San Luis Obispo overall rated wildfire as a high significance hazard due to history of occurrence and threat exposure. While there is no recent fire history in the Oceano CSD, factors such as the district's proximity to grasslands and adjacent to wildland areas with high fuel loads place it in a **high significance** rating. Strong winds, particularly in the late summer and fall, can rapidly drive flames towards residential zones.

Figure N-9 depicts the Fire Hazard Severity Zones (FHSZs) in Oceano CSD. It is worth noting, however, that FHSZs map only State Responsibility Areas (SRAs) and the areas designated as Non-Wildland do not necessarily indicate areas that are not at risk of wildfire, but areas outside of the SRA. In fact, most of the CSD is not within an SRA and therefore is not evaluated for FHSZs. Surrounding the CSD, Moderate to High Fire Hazard Zones exist along the southern and western edges of the CSD, primarily associated with vegetated portions of the Oceano Dunes. A Very High FHSZ is mapped further southwest, outside the CSD boundary, in the denser dune habitat area. Additionally, the Oceano Dunes State Vehicular Recreation Area and adjacent lands present potential ignition sources due to recreational activity and increased human presence.

In Oceano CSD SRAs, 179 properties are situated within moderate FHSZs. All of these properties are located in the Moderate FHSZ. Collectively, these properties represent a total value of \$82,708,174 and approximately 410 residents. Table N-25 shows the properties in the district exposed to FHSZs.

GIS analysis shows the critical facilities in Oceano CSD that are exposed to FHSZs, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there are a total of four (4) critical facilities that fall in the Moderate FHSZ.

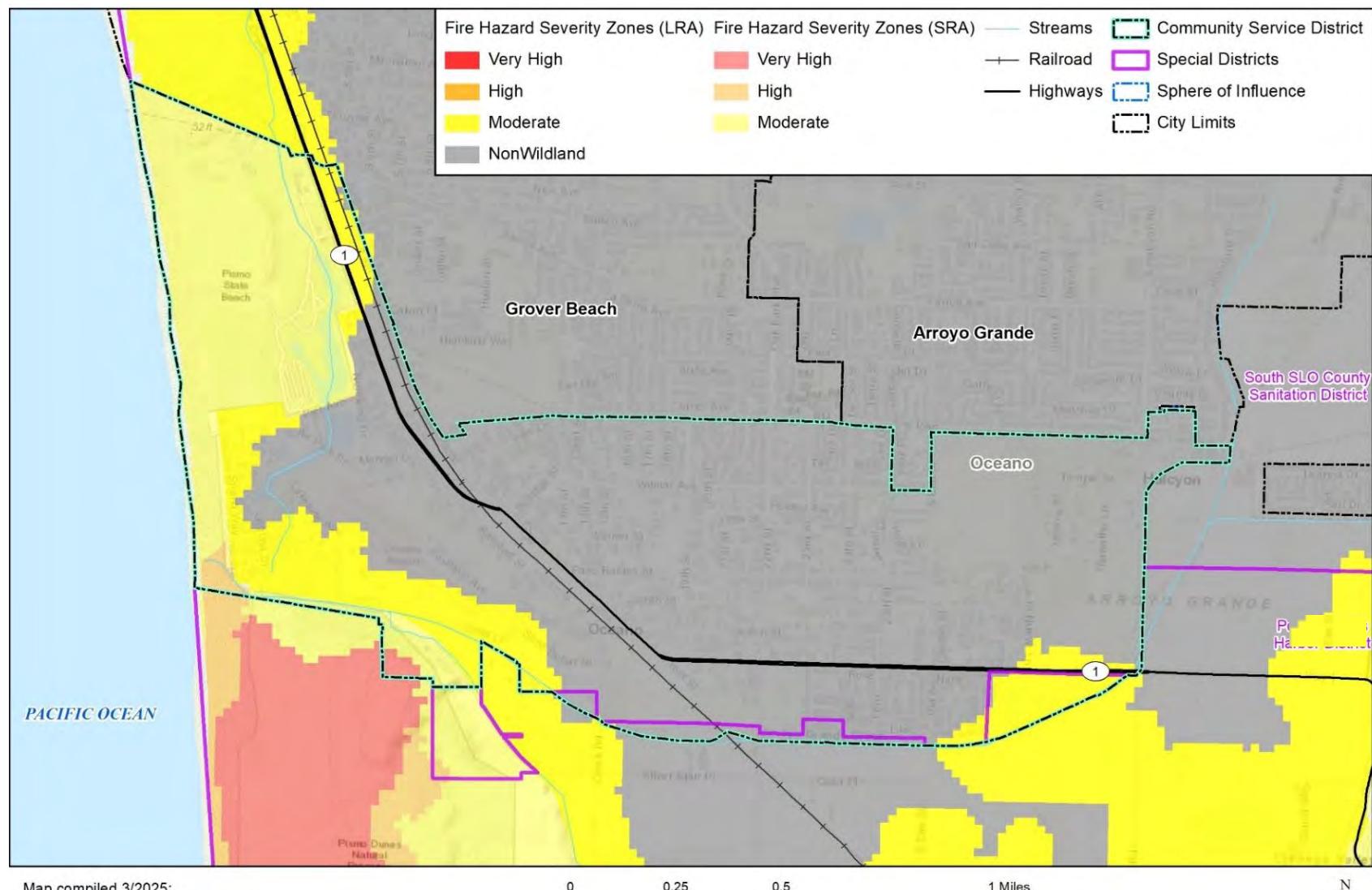
**Table N-25 Oceano CSD Improved Properties Exposed to Fire Hazard Severity Zones by Property Type**

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	-	-	8	8	\$1,335,335	\$1,335,335	\$2,670,670	-
Exempt	-	-	1	1	\$0	\$0	\$0	-
Mixed Use	-	-	3	3	\$1,273,498	\$1,273,498	\$2,546,996	-
Mobile/Manufactured Homes	-	-	1	1	\$319,374	\$159,687	\$479,061	2
Multi-Family Residential	-	-	12	12	\$4,225,413	\$2,112,707	\$6,338,120	30
Residential	-	-	153	153	\$47,108,045	\$23,554,023	\$70,662,068	378
Vacant Improved	-	-	1	1	\$11,260	\$0	\$11,260	-
Total	0	0	179	179	\$54,272,925	\$28,435,249	\$82,708,174	410

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis



Figure N-9 Oceano CSD 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



N.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 Oceano CSD capabilities are summarized below.

N.4.1 Regulatory Mitigation Capabilities

Table N-26 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 N-26 Oceano CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	No	Included in the San Luis Obispo County efforts
Zoning ordinance	No	Included in the San Luis Obispo County efforts
Subdivision ordinance	No	Included in the San Luis Obispo County efforts
Growth management ordinance	No	Included in the San Luis Obispo County efforts
Floodplain ordinance	No	Included in the San Luis Obispo County efforts
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	Included in the San Luis Obispo County efforts
Building code	No	Included in the San Luis Obispo County efforts
Fire department ISO rating	No	Included in the San Luis Obispo County efforts
Erosion or sediment control program	No	Included in the San Luis Obispo County efforts
Stormwater management program	No	Included in the San Luis Obispo County efforts
Site plan review requirements	No	Included in the San Luis Obispo County efforts
Capital improvements plan	Yes	OCSD Budget Document and CIP Documents
Economic development plan	No	Included in the San Luis Obispo County efforts
Local emergency operations plan	Yes	OCSD Emergency Operations Plan
Other special plans	No	Included in the San Luis Obispo County efforts
Flood Insurance Study or other engineering study for streams	No	Unknown
Elevation certificates (for floodplain development)	No	Included in the San Luis Obispo County efforts



Source: WSP Data Collection Guide, 2025; Oceano CSD

N.4.1.1 Discussion on Existing Building Codes, Land Use and Development Regulations

In Oceano, existing building codes, land use, and development regulations are administered by San Luis Obispo County, not the CSD. The County enforces state and local building codes and oversees zoning, permitting, and land use planning. Oceano is subject to the Coastal Zone Land Use Ordinance, including requirements for environmental protection, public access, and visual compatibility. While the CSD does not control land use decisions, its infrastructure planning and service delivery must align with County regulations and any applicable coastal or environmental review processes.

N.4.2 Administrative/Technical Mitigation Capabilities

Table N-27 identifies the personnel responsible for activities related to mitigation and loss prevention in the Oceano Community Services District.

Table N-27 Oceano CSD Administrative/Technical Mitigation Capabilities

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

Source: WSP Data Collection Guide, 2025; Oceano CSD

N.4.3 Fiscal Mitigation Capabilities

Table N-28 identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

**Table N-28 Oceano CSD 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	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	No
Withhold spending in hazard prone areas	No

N.4.4 National Flood Insurance Program

As a special district, Oceano is not eligible to participate in the National Flood Insurance Program (NFIP) and as an unincorporated area is covered by the County's participation in the program. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

N.4.5 Mitigation Outreach and Partnerships

Table N-29 Oceano CSD Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO	NOTES
Hazard Awareness/Education Campaigns	Yes	
Firewise	No	
Storm Ready	Yes	
Severe Weather Awareness Week	No	
School programs	Yes	
Other	Yes	FCFA
Methods Used to Communicate Hazard Info. to the Public	No	
Local News	Yes	
Social media	Yes	
Community Newsletters	Yes	
Utility Bill Inserts	Yes	
Community Events	Yes	
Organizations that represent or work with underserved or vulnerable communities	No	
American Red Cross	No	
Salvation Army	No	
Veterans Groups	No	
Environmental/Conservation Groups	No	
Homeowner/Neighborhood Associations	Yes	
Chamber of Commerce	No	
Community Organizations (Lions, Kiwanis, etc.)	No	



N.4.6 Opportunities for Enhancement

Based on the capability assessment, the Oceano Community Services District has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the CSD to expand or improve on these policies and programs to further protect the community. To enhance its mitigation capabilities, the CSD could focus on strengthening planning, data, and coordination efforts by hiring or contracting additional support in GIS, engineering, and hazard-specific planning. Building and continuing strong partnerships with San Luis Obispo County can help to integrate local hazard concerns into broader land use planning efforts. Additionally, the development of redundant communication and warning systems would be beneficial, particularly because the CSD currently lacks outdoor alert infrastructure or dedicated public warning capabilities.

Improving community outreach and inclusion could also enhance resilience. Establishing hazard education programs in schools and through local events can boost public preparedness. Engaging underserved populations, such as renters, mobile homeowners, and individuals with disabilities, will ensure all residents have equitable access to emergency planning and mitigation resources.

The CSD could also prioritize pursuing grant opportunities such as those offered by FEMA, the California Department of Water Resources, and the Community Development Block Grant by developing projects that focus on hazard resilience. Additionally, continued coordination with the County will be essential in advocating for funding for disadvantaged communities.

N.5 Mitigation Strategy

N.5.1 Mitigation Goals and Objectives

The 2019 Local Hazard Mitigation Plan For the Oceano Community Services District outlined the following goals:

- **Goal 1:** Promote understanding and support for hazard mitigation by key stakeholders and the public within the Community of Oceano.
- **Goal 2:** Ensure that future development is protected from natural disasters including earthquakes, wind, winter storms, hail, freeze, heat, drought, tsunamis and flooding.
- **Goal 3:** Build and support local capacity and commitment to minimize the District's vulnerability to potential naturally occurring hazards, including implementing sewer and water CIPs to improve infrastructure resilience.
- **Goal 4:** Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to flooding.
- **Goal 5:** Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to earthquakes, especially water and sewer systems.
- **Goal 6:** Limit risk to, and impacts from hazardous materials spills, sewage spills, intentional discharges, illegal disposals, transportation accidents, or system failures.
- **Goal 7:** Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to a tsunami event.

During the creation of the 2025 countywide MJHMP, the Oceano CSD adopted the hazard mitigation goals and objectives developed by the County Planning Team and described in Section 7 of the Base Plan.



N.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the Oceano LPT reviewed all the mitigation actions from the 2019 plan. The LPT identified that seven actions were completed and five were deleted, described in Table N-30.

Table N-30 Oceano Complete and Deleted Actions

2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
3.1B	Thunderstorm; High Wind; Extreme Heat; Biological Agents; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Fire; HazMat	Update the existing Emergency Operations Plans and supporting documents to ensure coordination with the County Emergency Operations Center (EOC), Emergency Response Plans and SOP's.	Utility Systems Supervisor	Completed. 2024
3.1F	Fire	Support the efforts of the FCFA in the implementation of the Five-Year Strategic Plan.	OCSD BOD and Administration	Deleted. Divested.
3.2A	Thunderstorm; High Wind; Extreme Heat; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Fire; HazMat	To ensure that employees are available to assist during a major emergency, have all OCSD departments adopt a Family Support Plan.	OCSD Administration	Completed. 07/01/2019; similar to COOP
3.3B	Thunderstorm; High Wind; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Subsidence; Tsunami; Fire	Work with the South County ARES/RACES group in developing a Communications Master Plan for re-establishing District's radio communications systems.	OCSD Admin.	Completed. 09/01/2020
3.4B	Thunderstorm; High Wind; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Subsidence; Tsunami; Fire	Develop a plan to provide standby power to the following essential service systems/functions: water well #8, the Administration Building, and the Sheriff's Substation.	OCSD Admin.	Completed. 10/01/2021
4.1D	Coastal Storm; Flood	Support the County's efforts to improve the drainage from the Front Street/Hwy. 1 flooding areas through a combination of vegetation management and storm drain improvements along Hwy. 1, moving the water to the Arroyo Grande Creek.	SLO County Public Works Staff	Completed. 2023
4.1E	Coastal Storm; Flood	Relocate the District's water and sewer lines that will be impacted by the Front Street/Hwy. 1 storm drain project.	OCSD BOD, Admin and Utility	Completed. 07/01/2019



2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
			Systems Supervisor	
4.1F	Thunderstorm; Coastal Storm; Flood; Landslides and Debris Flow	Support the efforts of the County and the Flood Control District in upgrading the Arroyo Grande Creek levee on both the north and south sides through a combination of vegetation and sediment management and raising both the north and south sides of the levee in a number of places.	SLO County Public Works	Completed. Levee repairs completed 2024
5.3A	High Wind; Wildfire	Support the FCFA efforts to train fire department staff in the California State Fire Marshal's Rescue System 1 and 2 programs.	Five Cities Fire Authority/Board of Directors	Deleted. Divested
6.1A	Hazardous Materials	Continue efforts to educate applicable employees on the handling, use, storage and disposal of hazardous materials utilized in the workplace.	Five Cities Fire Authority/OCSD Board of Directors	Deleted, no longer a priority
6.1B	Hazardous Materials	Support the FCFA in training 2 first responders to the Hazardous Materials Technician Level.	Water and Wastewater Staff	Deleted, no longer a priority
6.2	Hazardous Materials	Educate community members on the impacts associated with disposing of household hazardous materials on the wastewater system and provide advice on proper storage and disposal techniques.	Five Cities Fire Authority and OCSD Board of Directors	Deleted. Divested

N.5.3 Mitigation Actions

The Planning Team for the Oceano Community Services District identified and prioritized the following mitigation actions based on the conducted risk assessment (see Estimating Potential Losses). 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. Cost and timeline definitions are noted in the Base Plan Section 7.3.2.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Dense Fog.



Table N-31 Oceano CSD'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
OCSD.1	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat; Ag. Pest; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Through newsletters, speaking engagements and other public contacts, continue to educate the general public and key stakeholders on the District's issues, responsibilities, and current efforts and successes in the area of disaster preparedness.	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Low. Administration and General Fund	Medium	Annual Implementation	Ongoing
OCSD.2	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat; Ag. Pest; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Educate staff on current disaster preparedness developments	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Low. Administration and General Fund	High	Annual Implementation	Ongoing
OCSD.3	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Ag. Pest; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage; Earthquake;	Educate the elected OCSD BOD members on the importance of keeping current on trends and developments in disaster preparedness.	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Low. Administration and General Fund	Medium	Annual Implementation	Annual Implementation



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
	Flood; Landslides and Debris Flow; Tsunami; Wildfire						
OCSD.4	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Ag. Pest Infestation; Biological Agents; Coastal Storm/Coastal Erosion/Sea Level Rise; Dam Incidents; Drought and Water Shortage; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Encourage OAC members to attend local seminars and lectures on naturally occurring hazards so that they may better understand and assist County Planning staff as they process future development.	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Little to no Cost. Staff Time, General Fund	Medium	Annual Implementation	Annual Implementation
OCSD.5	Earthquake; Flood; Tsunami, Coastal Storm/Coastal Erosion/Sea Level Rise	In order to better protect life and property, continue to accumulate from the county accurate and comprehensive series of maps and data sets that pertain to the District's earthquake, tsunami and flood threats.	Utility Systems Supervisor	Little to no Cost. Staff Time, General Fund	Low	Medium-Term	In Progress.
OCSD.6	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Ag. Pest Infestation; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage;	Develop a Continuity of Operations Plan (COOP) for the District and train all essential staff on their roles and responsibilities as delineated in the Plan.	OCSD Administration	Moderate. General Fund	High	Medium-Term	In Progress.



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
	Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire						
OCSD.7	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Ag. Pest; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Train all District department managers and key staff members on their roles and responsibilities in emergency management and the District DOC as outlined in independent study courses FEMA/National Incident Management System - ICS 100, 700, and 800.	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Little to no Cost. Staff Time, General Fund	Medium	Annual Implementation	Annual Implementation
OCSD.8	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat; Biological Agents; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Working with SLO County OES, increase participation by District staff members in disaster drills put on by the County.	OCSD Board of Directors , Parks and Recreation Committee	Little to no Cost. Staff Time, General Fund	High	Short-term	Annual Implementation
OCSD.9	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat; Biological Agents; Coastal Storm; Dam Incidents; Drought and Water Shortage;	Send one District management employee to the California Specialized Training Institute (CSTI) Public Information Officer Course.	OCSD Administration	Low. EMGP, HSGP	High	Annual Implementation	Annual Implementation.



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
	Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire						
OCSD.10	Flood; Earthquake	Make improvements to wastewater collection systems by replacing or relining collection pipes so as to reduce sewer overflows and limit inflow and infiltration subsequently reducing the public health threat.	Utility Systems Supervisor	High. Sewer Fund	High	Long-Term	In Progress. Sewer CIP being developed
OCSD.11	Adverse Weather: Thunderstorm; Coastal Storm; Flood; Landslides and Debris Flow	Train staff on the proper techniques for containing sewer system overflows (SSO Protocols).	Utility Systems Supervisor	Low. Sewer Fund	Medium	Annual Implementation	Ongoing
OCSD.12	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Biological Agents; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Utilize the South County ARES/RACES group expertise, obtain and install a base station radio, mobile radios, and a standby power source to facilitate communications throughout the District as outlined in the Communications Master Plan.	OCSD Administration	Moderate. HSGP	Low	Medium-Term	In Progress. needs review and update
OCSD.13	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Earthquake, Coastal Storm/Coastal Erosion/Sea Level Rise; Drought and Water Shortage	Work with PG&E and County OES to explore potential funding sources for an auxiliary power source for water well # 8.	Utility Systems Supervisor	Very High. PA Program, FEMA HMA Grant, Water Fund	Medium	Medium-Term	Not Started. Needs backup generator.



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
OCSD.14	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat; Earthquake	Collaborate with the Sheriff's office on funding sources for a standby power system for the substation and the administration building.	OCSD Administration	Little to no Cost. Staff Time, General Fund	Medium	Medium-Term	Not Started. needs backup generator
OCSD.15	Flood, Coastal Storm/Coastal Erosion/Sea Level Rise	Support the efforts of the county in maintaining compliance with the National Flood Insurance Program (NFIP) requirements.	SLO County Planning Staff and OCSD admin.	Little to no Cost. Staff Time, General Fund	Low	Medium-Term	Annual Implementation
OCSD.16	Flood, Coastal Storm/Coastal Erosion/Sea Level Rise	Through the Development Review process (OAC), ensure the County restricts construction of essential service facilities in the 100-year flood plain.	OCSD Administration , Oceano Advisory Committee, and Board of Directors, County Planning/Zoning	Little to no Cost. Staff Time, General Fund	Low	Medium-Term	Annual Implementation. Partner with County Planning/Zoning
OCSD.17	Flood, Coastal Storm/Coastal Erosion/Sea Level Rise	Continue to work cooperatively with the county, state, and federal flood related agencies for funding improvements through grant and agency programs.	SLO County Public Works Staff , OCSD Administration	High. HMGP, CDBG, and Flood Control District Funds	High	Long-Term	Annual Implementation
OCSD.18	Earthquake	Working with SLO County OES, increase the public's awareness and participation in earthquake preparedness activities such as the annual Great California Shake-Out drill.	OCSD Administration , Oceano Advisory Committee, and Board of Directors, County OES	Little to no Cost. Staff Time, General Fund	Medium	Short-Term	Not Started.
OCSD.19	Earthquake	Continue replacing the water lines that are most vulnerable to an earthquake as delineated in the Cannon study.	OCSD Administration and Utility Systems Supervisor	High. HMGP, CDBG, and Water/Wastewater funds	High	Long-Term	Annual Implementation
OCSD.20	Earthquake	As delineated in the RRM Facilities Study, develop a replacement	OCSD Administration and	High. HMGP, CDBG,	High	Long-Term	Annual Implementation



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
		schedule for buildings found to be vulnerable to an earthquake.	Utility Systems Supervisor	Water/Wastewater funds			
OCSD.21	Earthquake	Send one District management employee to the California Specialized Training Institute (CSTI) Introduction to Earthquake Management Course.	OCSD Administration , Oceano Advisory Committee, and Board of Directors	Low. EMPG, HSGP, and General Fund	Medium	Medium-Term	Ongoing
OCSD.22	Tsunami	Continue working with County OES in the distribution of the existing tsunami public education pamphlet/map to the visitors and residents in the Tsunami inundation zone.	OCSD Administration	Little to no Cost. Staff Time, General Fund	Medium	Annual Implementation	Not Started.
OCSD.23	Adverse Weather: Thunderstorm, Adverse Weather: High Wind and Tornado, Adverse Weather: Extreme Heat;; Coastal Storm; Dam Incidents; Earthquake; Flood; Landslides and Debris Flow; Tsunami; Wildfire	Work with County OES and the California Coastal Commission to post evacuation route signage along Pier Street, and in the Airport and Oceano Campground areas.	OCSD Administration	Little to no Cost. Staff Time, General Fund	Low	Medium-Term	Not Started.



N.6 Implementation and Maintenance

Moving forward, the Oceano Community Services 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 of the Base Plan.

N.6.1.1 Incorporation into Existing Planning Mechanisms

The information contained within this Oceano 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 Oceano CSD's existing plans, as well as in the development of additional local plans, programs, regulations, and policies. Understanding the hazards which 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 Oceano CSD area. As noted in Section 8, the Planning Team representatives from the Oceano CSD 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.

N.6.1.2 Monitoring, Evaluation and Updating the Plan

The Oceano CSD 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 district in related County Hazard Mitigation Plan meetings or events, and for coordination with County staff and departments during plan updates. The Oceano CSD 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 O San Miguel Community Services District

O.1 District Profile

O.1.1 Mitigation Planning History and 2019 Process

This annex was updated in 2025 to build upon the previous version created for the 2019 San Luis Obispo Hazard Mitigation Plan update. The 2019 MJHMP was used to guide land use and stormwater planning in the CSD. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The San Miguel Fire Chief was the representative on the County HMPC and took the lead for developing this annex in coordination with the San Miguel Community Services District Local Planning Team (LPT). The LPT will be responsible for implementation and maintenance of the plan. Table O-1 shows the District's planning group for the plan revision process.

Table O-1 San Miguel CSD Hazard Mitigation Plan Planning Team

DEPARTMENT OR STAKEHOLDER	TITLE
San Miguel Fire	Fire Chief
Utilities	Director

Additionally, the plan must document opportunities for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies with the authority to regulate development, as well as businesses, academia, and other private and non-profit interests, to actively participate in the planning process. Stakeholder groups are listed below in Table O-2.

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

Table O-2 San Miguel CSD Stakeholder Groups, Neighboring Communities, and Local Agencies

STAKEHOLDER CATEGORY	ORGANIZATION
Agencies involved in hazard mitigation activities	San Miguel Fire
Agencies that have the authority to regulate development	County Planning
Neighboring communities	Paso Robles Fire and Emergency Services
Representatives of business academia, and other private orgs	Althouse & Meade (Environmental Consulting Firm providing conservation services)
Representatives supporting underserved communities	Community Action Partnership of SLO

O.1.2 District Overview

The unincorporated community of San Miguel has a population of 2,400 according to the 2010 census and is located in the Salinas River Valley about seven miles north of Paso Robles. The community is bordered on the west by Highway 101 and on the east by the Salinas River. San Miguel originated with the founding of Mission San Miguel Arcángel in 1797. The railroad arrived in 1886, and still runs through the center of town. In 1887 San Miguel was destroyed by fire, but the town was soon rebuilt. During World War II, San Miguel became the off-duty

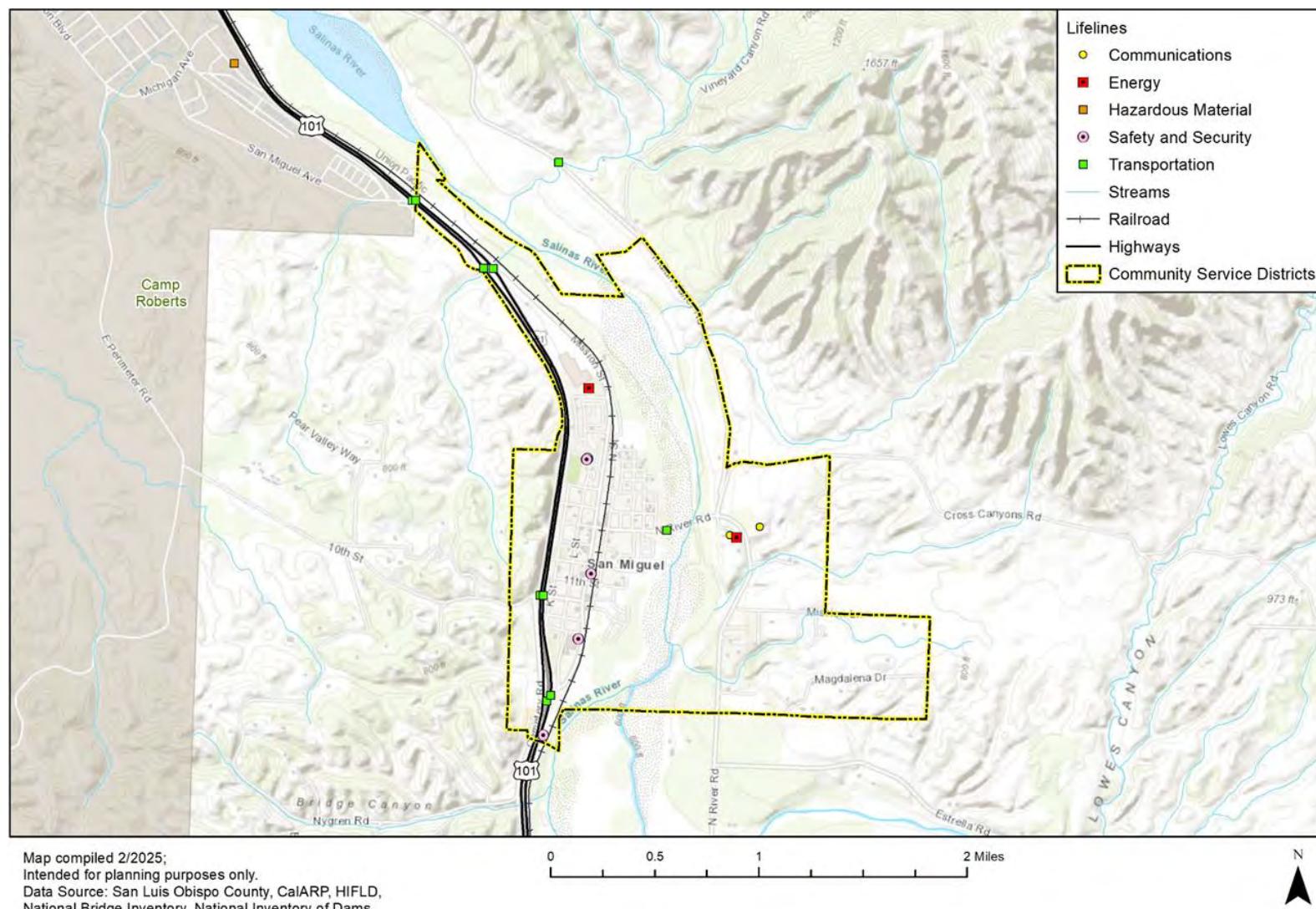


retreat for 45,000 troops stationed at Camp Roberts, which was later deactivated in the late 1950s. San Miguel is currently perceived as a low-cost bedroom community for Paso Robles and San Luis Obispo County.

The San Miguel Community Services District (CSD) is committed to serving the community with effectiveness, efficiency, and care to support the economic and social quality of life in San Miguel. The District proudly serves San Miguel with fire protection, street lighting, water, wastewater, and solid waste services. Figure O-1 shows the San Miguel Community Services District boundaries.



Figure O-1 San Miguel Community Services District





The U.S. Census Bureau estimated the San Miguel Census Designated Place's (CDP) 2017 population as 2,824, a 0.1% increase from 2,822 in 2012. Table O-3 shows an overview of key social and demographic characteristics of the CDP taken from the U.S. Census Bureau's American Community Survey.

Table O-3 San Miguel CDP Demographic and Social Characteristics, 2018-2023

SAN MIGUEL CDP	2018	2023	% CHANGE
Population	2,807	2,956	0.1%
Median Age	30.6	27.2	10.2%
Total Housing Units	871	813	2.3%
Housing Occupancy Rate	92%	94.3%	-7.5%
% of Housing Units with no Vehicles Available	4.7%	4.2%	0.5%
Median Home Value	\$302,200	\$452,200	26.7%
Unemployment	6.8%	3.2%	-1.0%
Mean Travel Time to Work (minutes)	27.8	23.5	14.8%
Median Household Income	\$70,945	\$93,333	20.9%
Per Capita Income	\$21,481	\$22,286	19.6%
% of Individuals Below Poverty Level	22.4%	23.1%	2.3%
# of Households	807	767	-5.4%
Average Household Size	3.46	3.84	5.8%
% of Population Over 25 with High School Diploma	72.5%	67.5%	-3.5%
% of Population Over 25 with Bachelor's Degree or Higher	13.8%	14.4%	3.5%
% with Disability	7.4%	9.3%	-0.6%

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

Note: Data is for the San Miguel Census Designated Place (CDP) which may not have the same boundaries as the San Miguel Community Services District.

Table O-4 shows how the San Miguel CDP's labor force breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey.

Table O-4 San Miguel CDP Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (16 years and over, 2023)	2,084	
In Labor Force	1,351	64.8%
Agriculture, forestry, fishing and hunting, and mining	265	20.9%
Armed Forces	16	.8%
Construction	32	2.5%
Manufacturing	109	8.6%
Wholesale trade	35	2.8%
Retail trade	164	12.9%
Transportation and warehousing, and utilities	111	8.8%
Information	43	3.4%
Finance and insurance, and real estate and rental and leasing	2	.2%



INDUSTRY	# EMPLOYED	% EMPLOYED
Professional, scientific, and management, and administrative and waste management services	195	15.4%
Educational services, and health care and social assistance	174	13.7%
Arts, entertainment, and recreation, and accommodation and food services	97	7.6%
Other services, except public administration	21	1.7%
Public administration	20	1.6%
Unemployed	67	3.2%

Source: U.S. Census Bureau American Community Survey 2012-2017 5-Year Estimates, www.census.gov/

Note: Data is for the San Miguel Census Designated Place (CDP) which may not have the same boundaries as the San Miguel Community Services District.

Table O-5 San Miguel CPD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (2023)	2,084	
In Labor Force	1,351	64.8%
Management, business, science, and arts occupations	151	11.9%
Service occupations	327	25.8%
Sales and office occupations	228	18%
Natural resources, construction, and maintenance occupations	387	30.5%
Production, transportation, and material moving occupations	175	13.8%

O.1.3 Development Trends

San Miguel's population growth has been slower compared to the nearby City of Paso Robles. According to the Planning Team, growth in San Miguel is currently limited to infill development and single-family homes. However, multi-family housing developments are anticipated in the future, which the community hopes will encourage commercial development, particularly in the downtown area. The district believes that its historic resources and location make it suitable for more tourism-oriented development in the future and hopes to attract small-scale manufacturing, which would bring more jobs to the community. Two sites outside the boundaries of the CSD have been identified as areas for potential community expansion. The district's main concerns with future growth are their ability to supply water and wastewater infrastructure and fire protection while keeping up with the growth.

The Planning Team noted that additional homes have been built adjacent to the Salinas River 100-year floodplain and additional future development is planned. Also, it was mentioned that proper construction methods and compliance with county floodplain regulations have prevented damage or loss in a recent past storm that resulted in a rise of river floodwaters. Thus, vulnerability has not noticeably increased or decreased for any of the hazards identified in Section O.3.3 since the 2019 update of this plan.



O.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 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 San Miguel CSD 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 San Miguel community that relate to hazards or hazard mitigation, as summarized in Table O-6 below. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the San Miguel Specific Plan, there are County planning mechanisms that regulate future and existing development within the San Miguel CSD planning area. Refer to Section O.4 Capability Assessment below as well as the Base Plan for more information on the plans, policies, regulations and staff that govern the San Miguel CSD.

Table O-6 Summary of Review of Key Plans, Studies and Reports

PLAN, STUDY, REPORT NAME	HOW THE DOCUMENT INFORMED THIS ANNEX
San Miguel Community Plan (2016)	Incorporated background information on the community and CSD including historical and cultural resources, natural resources, and development and land use trends
North County Area Plan (2014)	Incorporated information into the District overview and vulnerability assessment.

O.2 Hazard Identification and Summary

The San Miguel CSD Planning Team identified the hazards that affect the District and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to the San Miguel CSD (see Table O-7). There are no hazards that are unique to the District.

Table O-7 San Miguel CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm, Heavy Rain, Lightening, Freeze, Dense Fog	Extensive	Likely	Catastrophic	High
Adverse Weather: High Wind and Tornado	Extensive	Likely	Catastrophic	High
Adverse Weather: Extreme Heat	Extensive	Likely	Catastrophic	High
Dam Failure	Limited	Unlikely	Negligible	Medium
Drought and Water Shortage	Extensive	Likely	Catastrophic	High
Earthquake	Extensive	Likely	Critical	High



HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Flooding	Limited	Occasional	Limited	Medium
Landslide and debris flow	Significant	Likely	Critical	Medium
Wildfire	Extensive	Highly Likely	Catastrophic	High
Hazardous Materials	Limited	Highly Likely	Negligible	Medium
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			

O.3 Vulnerability Assessment

The intent of this section is to assess the San Miguel Community Services District's vulnerability separate from that of the planning area, which has already been assessed in Section 5 Hazard Identification and Risk Assessment (HIRA) in the Base Plan. This vulnerability assessment analyzes the population, property, and other assets at risk to hazards ranked of medium or high significance.

The information to support the HIRA portion of this Annex was collected through a Data Collection Guide, which was distributed to each participating municipality or 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 San Miguel CSD Planning Team members were asked to share information on past significant hazard events that have affected the Community Services District.

Each participating jurisdiction and district were in support of the main hazard summary identified in Section 5 of 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 Section 5.1.2). 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 San Miguel CSD Planning Team input from the Data Collection Guide and the risk assessment



results compiled during the planning process (see Section 5 of the Base Plan), which included more detailed quantitative analyses with the best available data. The hazard summaries in Table O-7 reflect the hazards that could potentially affect the District. The discussion of vulnerability for each of the hazards listed is in Section O.3.3 Estimating Potential Losses.

O.3.1.1 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 assessment or mitigation actions:

- Adverse weather: Hail
- Agricultural Pests and Diseases
- Biological Agents
- Coastal Storm/ Coastal Erosion/ Sea Level Rise
- Subsidence
- Tsunami and Seiches

O.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. See Section 5.2 of the Base Plan (Asset Summary) for more details and background on the parcel summarization, analysis, and datasets available.

O.3.2.1 Values at Risk

This section considers San Miguel CSD's assets at risk, including an inventory of improved properties and critical facilities and Community Lifelines, and historic, economic, cultural, and environmental assets. Table O-8 summarizes the exposure of properties (e.g., the values at risk based on improvement values, content values, and total values as an addition of these two types of values) broken down by property type for the San Miguel Community Services District.

Table O-8 San Miguel CSD Exposure by Property Types

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Agricultural	5	\$32,965,309	\$32,965,309	\$65,930,618
Commercial	23	\$6,603,516	\$6,603,516	\$13,207,032
Exempt	4	\$1,974,806	\$1,974,806	\$3,949,612
Industrial	9	\$487,823	\$731,735	\$1,219,558
Mixed Use	24	\$5,306,044	\$5,306,044	\$10,612,088
Mobile Home	23	\$4,053,412	\$2,026,706	\$6,080,118
Multi-Family Residential	44	\$9,402,774	\$4,701,387	\$14,104,161
Residential	771	\$155,238,174	\$77,619,087	\$232,857,261
Vacant Improved	10	\$473,599	\$473,599	\$947,198
Total	913	\$216,505,457	\$132,402,189	\$348,907,646

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis; San Miguel LPT noted the 33 Commercial, 35 mobile home, 25 multi-family residential, and 830 residential properties; difference may be attributable to undeveloped properties vs developed (shown in table above).



O.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. 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 San Miguel Community Services District based on San Luis Obispo County GIS data as well as structures obtained from the Homeland Infrastructure Foundation-Level Dataset (HIFLD) is provided in and illustrated in Table O-9. Table O-10 lists additional critical assets identified by the Planning Team. Refer to Section 5.2 of the Base Plan for more information on the assets used throughout this Annex and County-wide analyses.

Table O-9 San Miguel CSD's Critical Facilities

FEMA LIFELINE CATEGORY	COUNTS
Communications	4
Energy	2
Food, Hydration, Shelter	-
Hazardous Material	-
Health and Medical	1
Safety and Security	6
Transportation	8
Water Systems	-
Total	21

Source: San Luis Obispo County, CalARP, HIFLD, National Bridge Inventory, National Inventory of Dams, FCWCD, WSP Analysis

The following table lists the additional assets within the District as identified by the Planning Team. Additional discussion on assets in San Miguel can be found below.

Table O-10 Critical Assets Identified by San Miguel Planning Team

NAME OF ASSET	TYPE	REPLACEMENT VALUE
San Miguel Fire Department	EI	\$5,500,000
PG&E Substation	EI	\$6,000,000
Version Substation	EI	\$750,000
River Road Bridge	EI	\$5,000,000
Mission San Miguel	NA*	\$15,000,000
Rios Caledonia	NA*	\$3,000,000
Highway 101	VF	\$6,000,000
Water Infrastructure	EI	\$50,000,000
Waste water treatment plant	EI	\$1,500,000
Natural gas line	EI	\$5,000,000
Union Pacific Railroad	EI	\$3,000,000
CHC	VF	\$1,000,000
Lillian Larson School	VF	\$5,000,000
Gallo Wines	VF	\$90,494,746

Source: San Miguel CSD Planning Team.

EI: Essential Infrastructure. NA: Natural Asset. VF: Vulnerable Facility. * = State registered landmark

O.3.2.3 Emergency Services Facilities

Emergency services facilities in San Miguel include a health center, day care, fire department, and schools. San Miguel is served by the San Miguel Joint Union School District (SMJUSD) for Kindergarten through Grade 8. The District operates Lillian Larsen Elementary School in San



Miguel. There is also a preschool on campus which is operated by the State. The community is served by non-profit Community Health Centers of the Central Coast. Fire protection is provided through San Miguel Fire, which has mutual aid agreements with CalFire and Camp Roberts.

O.3.2.4 Lifeline Utility Systems

Lifeline utility systems in San Miguel include one electrical substation, natural gas lines, 3 well sites, 2 water storage tanks with 700,000 gallons of storage capacity, water pipelines, and a wastewater treatment facility. In 2013, all of San Miguel's water needs were met by two of its three wells. The San Miguel CSD also operates the Machado Wastewater Treatment Plant, which serves 90% of the District including areas east of the Salinas River.

O.3.2.5 Transportation Systems

The Planning Team identified the following critical transportation infrastructure; the River Road Bridge, Highway 101, and the Union Pacific Railroad. Mission Street is San Miguel's main street and primary commercial corridor. Highway 101 is the principal arterial in the region, and the River Road Bridge is the only crossing of the Salinas River between Paso Robles and Camp Roberts. The Union Pacific Railroad travels through the center of town. While it once played an important role in the economy of San Miguel, trains no longer stop in San Miguel.

O.3.2.6 Historic and Cultural Resources

There are two state historical landmarks within San Miguel that attract many visitors, Mission San Miguel Arcángel and Rios Caledonia Adobe. The Mission was founded in 1797 and has been occupied and administered by the Franciscan Friars of the Province of Saint Barbara since 1928. Rios Caledonia Adobe was built in 1835 and historically served as an inn and stage stop on the Mission Trail between San Francisco and Los Angeles. Both sites are an important part of the local heritage. Gallo Wines was also identified by the community as an important cultural resource.

O.3.2.7 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. 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. The San Miguel Community Plan (2016) designated the following combining designation that applies to the protection of special resources in the San Miguel community:

- Salinas River Corridor (SRA) – The Salinas River Corridor is home to sensitive riparian habitat and important wildlife migration corridors. It is also important for flood control and management of water resources.

The two primary plant communities in the area are willow-cottonwood riparian forest and non-native annual grassland. Several special-status plant species inhabit the San Miguel community and are detailed in the San Miguel Community Plan.

O.3.2.8 Economic Assets

According to the San Miguel Community Plan, San Miguel's history has been marked by boom and bust cycles, often in response to fluctuations in the agricultural economy and the military's use of nearby Camp Roberts. The major economic sectors in San Miguel are agriculture, tourism, and manufacturing. According to the San Miguel Community Plan, agriculture in the area has shifted over time from cattle to most recently dry-farmed pasture crops such as alfalfa, almonds, olives, and wine grapes. The Community Plan states that as of 2016 San Miguel qualified under state law as a disadvantaged community based on per capita income.



Few “head-of-household” jobs exist in the community, and many residents commute to Paso Robles or beyond for employment and to obtain many basic goods and services.

O.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 Planning Team input) it significantly differs from that of the overall County.

Table O-8 under Section O.3.2 summarizes San Miguel’s exposure in terms of number and value of parcels falling within the District’s boundaries. San Luis Obispo County parcel and assessor data was used to calculate the improved value of parcels. The most vulnerable structures are those in the in the floodplain (especially those that have been flooded in the past), unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building or land regulatory codes. According to San Miguel Fire, San Miguel has not experienced a hazardous event in the past 75 years. However, the community is still vulnerable to several hazards which are discussed below. See Section 5 of the Base Plan for more information on assets, parcel analysis methodology, and hazard profiles.

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

Adverse weather was rated as **High** Significance for the San Miguel CSD and may include thunderstorms, heavy rain, lightning, dense fog, and freeze. The entire property and facility inventory, as well as the population, of San Miguel is exposed to the impacts of thunderstorm/heavy rain/lightning/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. San Miguel receives about 15 inches of rainfall annually, most of which occurs in the winter, increasing the risk of flash flooding, erosion, and stormwater-related infrastructure issues. Hazardous trees are also a significant concern of the community. Older neighborhoods in particular are distinguished by the presence of mature trees which may be downed by winds and storms. Refer to Section 5 of the Base Plan for further analysis on hazardous trees within the County. The tables below shows key climate variables such as extreme temperatures, precipitation totals, and the frequency of specific weather events. Note that Paso Robles weather station is the nearest official reporting site to San Miguel CSD.

Table O-11 Paso Robles Municipal Airport Climate Summary Table – Weather (Period of Record: 03/18/1952 - 04/20/2025)

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	61.9 °F	33.9 °F	87 °F	12/4/1958	0 °F	1/6/1913	0	41.7
Spring	73.2 °F	41 °F	110 °F	5/31/1910	20 °F	3/2/1971	6.5	7.9
Summer	90.8 °F	49.6 °F	117 °F	8/13/1933	31 °F	6/15/1973	54.5	0
Fall	79.7 °F	41.8 °F	115 °F	9/7/2020	14 °F	11/17/1958	21.1	12.6
Annual	76.5 °F	41.6 °F	117 °F	8/13/1933	0 °F	1/6/1913	82.4	63.2

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 O-12 Paso Robles Municipal Airport Climate Summary Table - Precipitation (Period of Record: 03/18/1952 - 04/20/2025)**

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECIP. 1 DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. \geq 1.00 IN. MEAN # DAYS
Winter	9.06 in.	26.18 in.	1969	2.03 in.	1964	5.25 in.	12/6/1966	2.4
Spring	3.77 in.	12.84 in.	1995	0 in.	1997	4.7 in.	3/10/1995	0.7
Summer	0.13 in.	2.82 in.	2015	0 in.	1900	2.29 in.	7/19/2015	0
Fall	2.07 in.	7.64 in.	1900	0.02 in.	1980	3.88 in.	10/14/2009	0.3
Annual	14.88 in.	29.19 in.	1941	2.78 in.	2013	5.25 in.	12/6/1966	3.5

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

0.3.3.2 Adverse Weather: High Wind and Tornado

The overall significance rating of high wind and tornadoes is San Miguel CSD is rated **High**. The entire property and facility inventory, as well as the population, of San Miguel is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. The area frequently experiences strong winds during winter storms, which can lead to downed trees, power lines, and property damage. San Miguel's open terrain offers little natural wind protection, and much of the local infrastructure, including older homes and above-ground utilities, may not be built to current wind-resistant standards. The community is also characterized by mature trees, particularly in older neighborhoods, which pose additional risks during storms as falling limbs can damage property or block critical access routes.

Although tornadoes are rare in San Luis Obispo County, the EF1 tornado in nearby Los Osos in February 2024 illustrates that such events are possible and could impact inland communities like San Miguel. Additionally, the area's rural layout and limited emergency access routes can slow response and recovery efforts after wind-related incidents.

0.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **high** significance hazard for the San Miguel CSD. The entire property and facility inventory, as well as the population, of San Miguel is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean high summer temperature for the Paso Robles Municipal Airport, the closest NOAA weather station to the CSD with recent data, is 90.8°F; however, temperatures up to 117°F have been recorded (see Table O-11). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

As a small, rural community, the San Miguel CSD is particularly vulnerable to extreme heat. Vulnerable populations, such as the elderly, children, and those with health conditions, are at higher risk for heat-related illnesses. With limited access to cooling centers and a volunteer-based fire department, the community may be strained in responding to medical emergencies during heat events.

Water resources are also at risk. Rising temperatures increase demand on San Miguel's water system, both for residential and agricultural irrigation. The surge in water use associated with extreme heat events can stress aging infrastructure and contribute to declining water quality in local wells. High temperatures can also reduce the efficiency of wastewater treatment processes and strain the CSD's capacity to manage basic services.



Energy use typically spikes during heatwaves as residents rely more heavily on air conditioning, which can in turn stress the power grid. Without backup systems prolonged outages could impact critical operations like water pumping and treatment. Additionally, sustained heat and dry conditions increase the risk of wildfire, threatening lives, homes, and essential services.

O.3.3.4 Dam Incidents

Dam failure is rated as **Medium Significance** in San Miguel CSD. The San Miguel CSD is located downstream of the Salinas Dam and the Nacimiento Dam. Failure of either of these dams would cause water to rush down the Salinas River, whose river channel extends to within 100 yards of residences in San Miguel.

The Salinas Dam was constructed in 1941 to supply water to Camp San Luis Obispo. Today, the dam is operated by the City of San Luis Obispo to supply water to the City and surrounding agricultural areas. Expansion of the dam was explored as part of the 2013 Salinas Reservoir Expansion Study, but it was found that the dam would not maintain structural integrity at the increased capacity. It was also found that the dam was vulnerable to failure in a prolonged earthquake, although the dam does meet design requirements at its current capacity. Overall, failure of the Salinas Dam is a concern for San Miguel CSD, but to a more limited extent relative to the Nacimiento Dam.

The Nacimiento Dam is over 10 times larger than the Salinas Dam, holding nearly 500,000 acre feet of water. The inundation zone of the Nacimiento Dam extends much farther into San Miguel than does the Salinas Dam inundation zone (Figure O-2). Failure of this dam could cause very significant problems in San Miguel. Exposure to housing from potential dam failure hazards in the San Miguel CSD is especially severe, with 301 structures and 736 people within the Nacimiento Dam inundation zone (Table O-13). Three critical facilities, all bridges, also exist in this area (Table O-14). See Appendix G for details of these facilities. Refer to Section 5.3.8 *Dam Incidents* of the Base Plan for additional discussion on the potential impacts of dam incidents in the County.

Table O-13 San Miguel CSD's Estimated Losses by Property Type based on Salinas Dam Inundation Extents

PROPERTY TYPE	STRUCTURE COUNT	POPULATION
Agricultural	1	-
Mobile/Manufactured Homes	2	5
Multi-Family Residential	5	12
Residential	291	719
Vacant Improved	2	-
Total	301	736

Source: San Luis Obispo Assessor Data November 15, 2024, Division of Safety of Dams, Department of Water Resources, WSP GIS Analysis

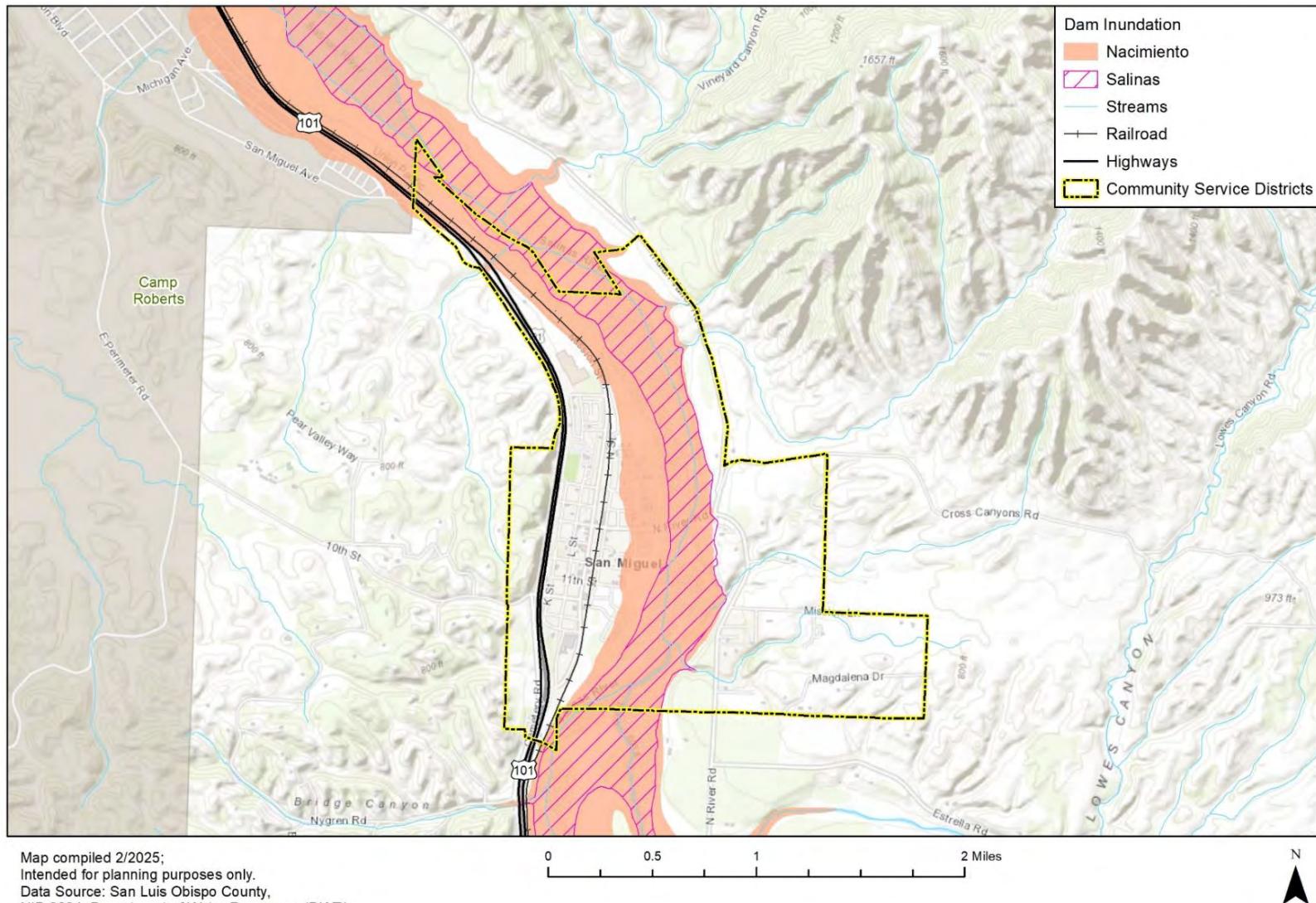
Table O-14 Critical Facility Assets Exposed to Dam Inundation in San Miguel CSD by FEMA Lifeline

COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
-	-	-	-	-	-	3	-	3

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



Figure O-2 Dam Inundation Extents in San Miguel Community Services District





O.3.3.5 Drought and Water Shortage

Drought was rated as **high significance** by the San Miguel CSD and has historically contributed to the boom-and-bust economic cycles in the community in terms of the agricultural sector. The cultivation of water-intensive crops, particularly alfalfa and almonds, makes the agricultural community in San Miguel especially vulnerable to water shortage. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, for more detail on the typical impacts for San Miguel beyond agricultural. According to the San Miguel Community Plan, in 2010 San Miguel's gross water use was 239 acre-feet; this is expected to increase to 483 acre-feet per year by 2035. Concentrated pumping within the greater Paso Robles Groundwater Basin has created localized depressions and has depleted groundwater reserves. Information related to the Sustainable Groundwater Management Act and the Paso Robles Groundwater Basin can be found in Section 5 of the Base Plan.

Drought is a recurring hazard in the San Miguel CSD, posing significant risks to water supply, emergency services, infrastructure, and community resilience. As a slow-onset hazard, drought impacts can extend over multiple years, leading to water shortages, increased costs, and economic stress on residents and businesses. The San Miguel CSD is particularly vulnerable due to its heavy reliance on local groundwater from the Paso Robles Groundwater Basin, a high-priority and critically overdrafted basin. Unlike some other communities in San Luis Obispo County, San Miguel has no access to imported water, making groundwater management and conservation essential for long-term sustainability.

Additionally, San Miguel is a low-income community with a high portion of underserved migrant populations. These vulnerable populations may lack the resources to adapt to water shortages or increased utility costs. Beyond water access, fire protection is a major concern, as San Miguel currently operates with only a single full-time Fire Chief and relies on a paid-call firefighter staffing model. Securing funding for additional full-time firefighters is a priority, as increased staffing would provide a higher level of emergency response, particularly during extreme drought conditions when fire risk increases. Additionally, water pressure and storage capacity in the San Laurence Terrace area need improvements to ensure adequate fire flow in emergencies. A critical vulnerability exists at the water supply cross-connection to the River Road Bridge, as damage to this infrastructure would leave the San Laurence Terrace portion of the community without drinking water or necessary fire suppression resources.

Historically, droughts have significantly affected San Miguel and the surrounding region, with notable events in 2012-2016 and 2020-2022 causing sharp declines in groundwater levels and increased conservation mandates. During prolonged droughts, pumping costs rise as wells must extract water from deeper levels, potentially leading to water quality degradation due to increased salinity or contamination risks. The economic impacts extend beyond the water system, affecting local agriculture, small businesses, and residential households facing higher water rates and usage restrictions. Additionally, climate change projections indicate that reduced precipitation and rising temperatures may exacerbate future drought conditions, further straining water resources.

O.3.3.6 Earthquake

Earthquake was rated as **High** Significance by the San Miguel CSD. There are no mapped active or potentially active faults in San Miguel, though the community is still vulnerable to earthquakes from regional faults. The San Simeon earthquake in 2003 was centered about 30 miles from San Miguel, and caused damage to Mission San Miguel Arcángel, forcing it to close to the public temporarily. Restoration and retrofitting are still ongoing and are expected to total \$15 million. Some buildings in the downtown area between 11th and 14th Streets date back to the early 1900s and may also be vulnerable to an earthquake. The Sims Hotel, specifically,



has been identified as an unreinforced masonry building in need of retrofit per Title 19 of the County Code and SB 547.

Liquefaction also poses a risk to portions of the San Miguel CSD. The following tables, show the properties and critical facilities in zones of liquefaction risk. As shown in Figure O-3 below, proximity to the Salinas River is the most significant indicator of liquefaction risk in the community. Based on this analysis there are 913 properties exposed to liquefaction risk with a total value of over \$348 million. Residential properties are the most vulnerable property type to liquefaction in Nipomo, with a combined total of 838 properties (including multi-family residential and mobile homes) with a total value of over \$253 million. Most properties are at moderate liquefaction risk, as well as 15 out of the district's 20 critical facilities, as indicated in Table O-16. Very few properties are located in an area of high liquefaction risk.

**Table O-15 San Miguel CSD's Improved Properties Exposed to Liquefaction Potential by Property Type**

PROPERTY TYPE	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	STRUCTURE COUNT LOW	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	1	1	3	5	\$32,965,309	\$32,965,309	\$65,930,618	-
Commercial	-	23	-	23	\$6,603,516	\$6,603,516	\$13,207,032	-
Exempt	-	4	-	4	\$1,974,806	\$1,974,806	\$3,949,612	-
Industrial	-	9	-	9	\$487,823	\$731,735	\$1,219,558	-
Mixed Use	-	24	-	24	\$5,306,044	\$5,306,044	\$10,612,088	-
Mobile/Manufactured Homes	-	6	17	23	\$4,053,412	\$2,026,706	\$6,080,118	57
Multi-Family Residential	-	43	1	44	\$9,402,774	\$4,701,387	\$14,104,161	109
Residential	2	671	98	771	\$155,238,174	\$77,619,087	\$232,857,261	1,904
Vacant Improved	-	6	4	10	\$473,599	\$0	\$473,599	-
Total	3	787	123	913	\$216,505,457	\$131,928,590	\$348,434,047	2,070

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

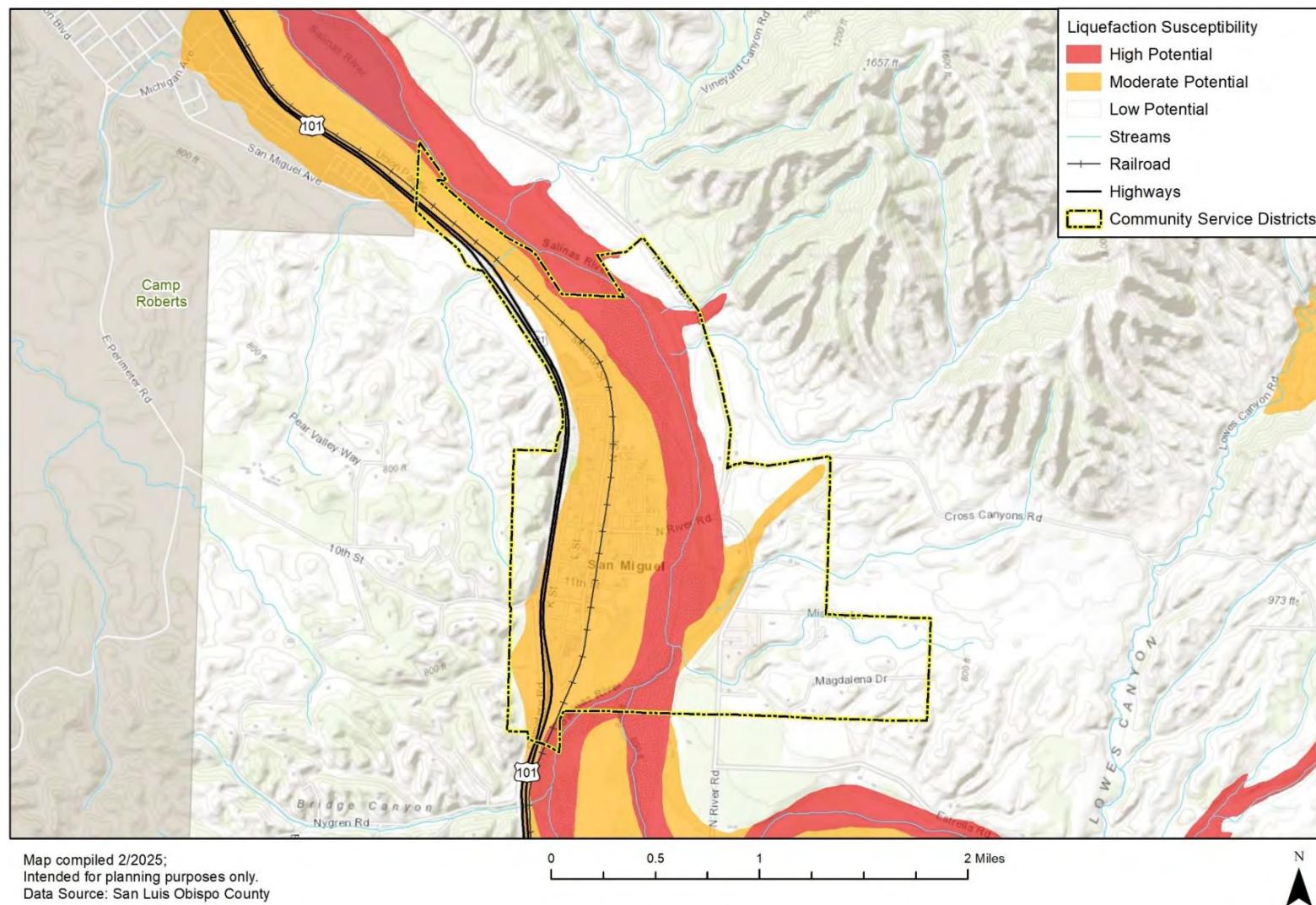
Table O-16 San Miguel CSD's Critical Facilities in Moderate Liquefaction Hazard Zone

LIQUEFACTION SUSCEPTIBILITY	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Medium Liquefaction Susceptibility	1	1	-	-	-	6	7	-	15
Low Liquefaction Susceptibility	3	1	-	-	-	-	1	-	5

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



Figure O-3 San Miguel CSD Liquefaction Susceptibility





O.3.3.7 Flood

Flooding remains a hazard of **medium** significance for the San Miguel CSD. The community's location along the Salinas River corridor, characterized by steep banks and sandy bottoms, contributes to its susceptibility to flooding. San Miguel is situated on two terraces connected by a steep slope, with water draining eastward into the river. Properties located on the lower terrace are primarily within areas identified as having a 1% annual chance of flooding. The absence of a comprehensive storm drain system leads to periodic inundation of low-lying areas during heavy rainfall, particularly along N Street and Mission Street between 12th and 16th Streets.

A comprehensive drainage study conducted in 2003 identified key areas for improvement, and the associated drainage plan is being implemented incrementally as new development occurs. Recent updates to floodplain mapping have provided more accurate delineations of flood-prone areas, assisting in better planning and mitigation efforts.

The San Miguel CSD does not participate separately in the National Flood Insurance Program (NFIP) but continues to support the County's participation and compliance with NFIP requirements. Coordination with the County ensures that floodplain management practices are upheld within the community.

In response to recent flood events, including significant rainfall in January 2023 that caused damage to infrastructure such as a sewer lift station, the CSD has recognized the need for enhanced flood mitigation measures. Efforts are also underway to update the District's Sewer System Management Plan (SSMP).

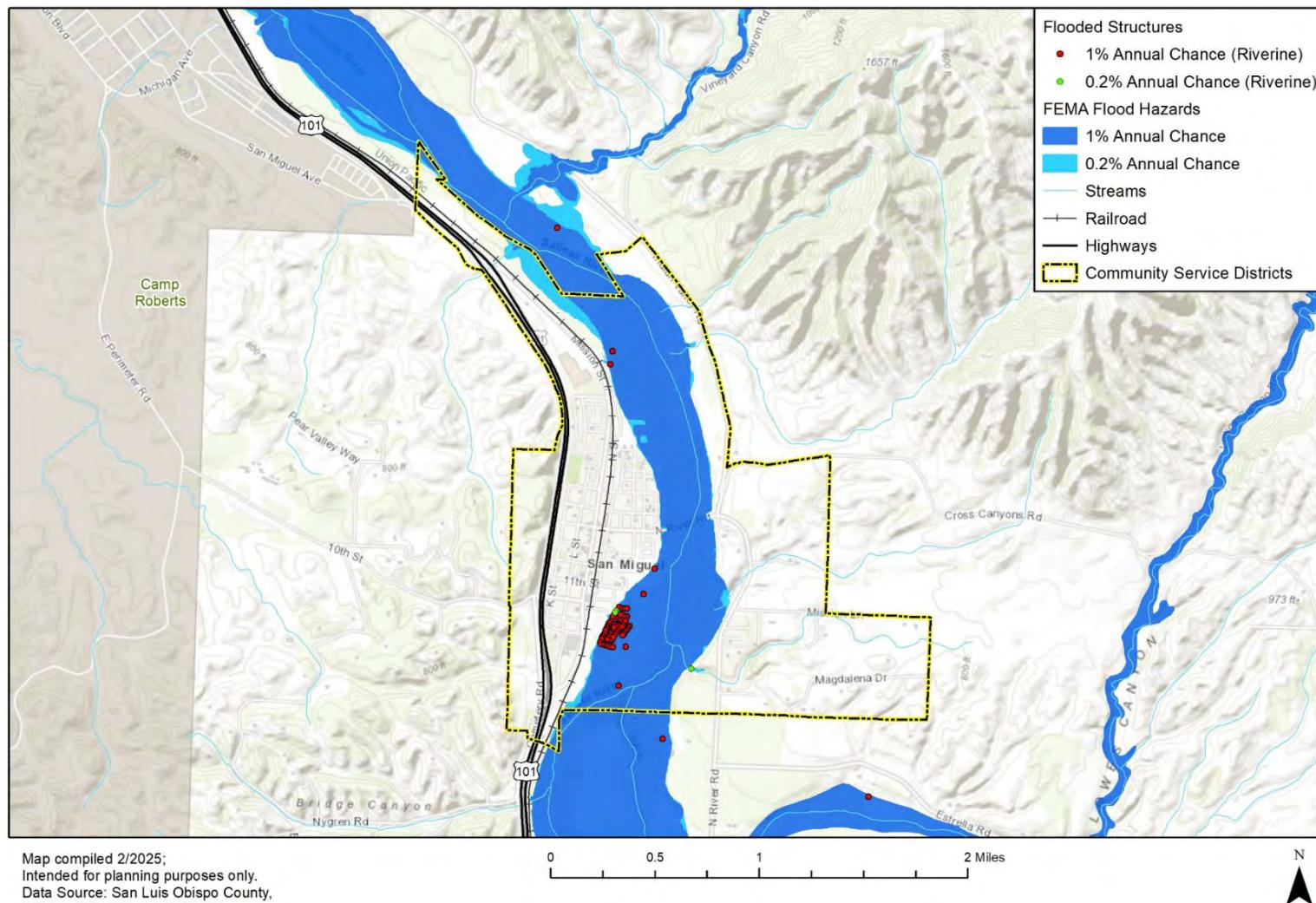
The CSD is also exploring opportunities to collaborate with regional partners and seek funding for projects aimed at reducing flood risk, such as the construction of new drainage infrastructure and the implementation of green infrastructure solutions. Public education and outreach remain integral components of the CSD's strategy to enhance community resilience against flooding hazards.

San Miguel does not participate separately in the National Flood Insurance Program (NFIP) but will continue to support the County's participation in and compliance with the NFIP. Further information on this hazard at the county level can be found in Section 5.3.13 of the base plan.

Figure O-4, below, shows FEMA flood hazard areas and flooded parcels in the CSD.



Figure O-4 FEMA Flood Hazard Areas and Flooded Parcels in San Miguel Community Services District





Values at Risk

Table O-17 San Miguel CSD's FEMA 1% Annual Chance Flood Hazard by Property Type

PROPERTY TYPE	PROPERTY COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POP.
Agricultural	1	\$6,003	\$6,003	\$12,006	\$3,002	-
Mobile/Manufactured Homes	1	\$288,432	\$144,216	\$432,648	\$108,162	2
Multi-Family Residential	1	\$83,626	\$41,813	\$125,439	\$31,360	2
Residential	59	\$14,399,806	\$7,199,903	\$21,599,709	\$5,399,927	146
Total	62	\$14,777,867	\$7,391,935	\$22,169,802	\$5,542,451	151

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Table O-18 San Miguel CSD's FEMA 0.2% Annual Chance Flood Hazard by Property Type

PROPERTY TYPE	PROPERTY COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POP.
Residential	2	\$426,519	\$213,260	\$639,779	\$159,945	5
Vacant Improved	1	\$122,114	\$0	\$122,114	\$30,529	-
Total	3	\$548,633	\$213,260	\$761,893	\$190,473	5

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

For the 1% annual chance flood hazard, San Miguel CSD has an estimated \$22.1 million in total property value at risk, with over \$14.7 million in improved structural value and \$7.3 million in estimated contents value. The highest concentration of value is within the residential sector, which alone represents over \$21.5 million in total value. The estimated loss across all property types in the 1% annual chance flood zone is over \$5.5 million, with additional exposure in mobile homes, multifamily housing, and agricultural uses. In the 0.2% annual chance zone, additional property exposure is limited but includes approximately \$762,000 in total value, most of which is residential.

Population at Risk

A total of 151 people are estimated to live in the 1% annual chance flood zone, primarily within single-family and multifamily residential structures. The 0.2% annual chance zone contains an additional five residents, reflecting a modest increase in population exposure. While the overall number of exposed individuals is relatively low, the presence of vulnerable housing types, such as mobile and multifamily homes, suggests the need for targeted mitigation and preparedness efforts.

Critical Facilities at Risk

No critical facilities within San Miguel CSD are currently mapped within the FEMA 1% or 0.2% annual chance flood hazard zones. However, this does not eliminate the possibility of flooding impacts to key infrastructure, particularly during more localized or unanticipated storm events. Continued monitoring, site-specific analysis, and coordination with County emergency management remain essential to ensure critical services remain resilient under future conditions. The LPT noted that the community of San Miguel is bisected by the Salinas river. Due to the river crossing the community water supplies are vulnerable to catastrophic loss in the event that there is a failure of the River Road Bridge. Loss of the bridge, and the pipeline in it, can come from a significant earthquake, or it may be washed out due to a heavy rain event coupled with flooding.

O.3.3.8 Landslide and Debris Flow

The San Miguel Community Service District gave landslides and debris flow a **medium** overall significance rating. As shown in Figure O-5, the district has areas with both moderate and high



potential for landslides and debris flow. According to the GIS analysis, there are a total of 123 properties with a total value of over \$77 million. Of the properties at risk, 99 are residential or multi-family property types. These properties are listed in Table O-19.

Table O-19 Improved Properties Exposed to Landslide Potential

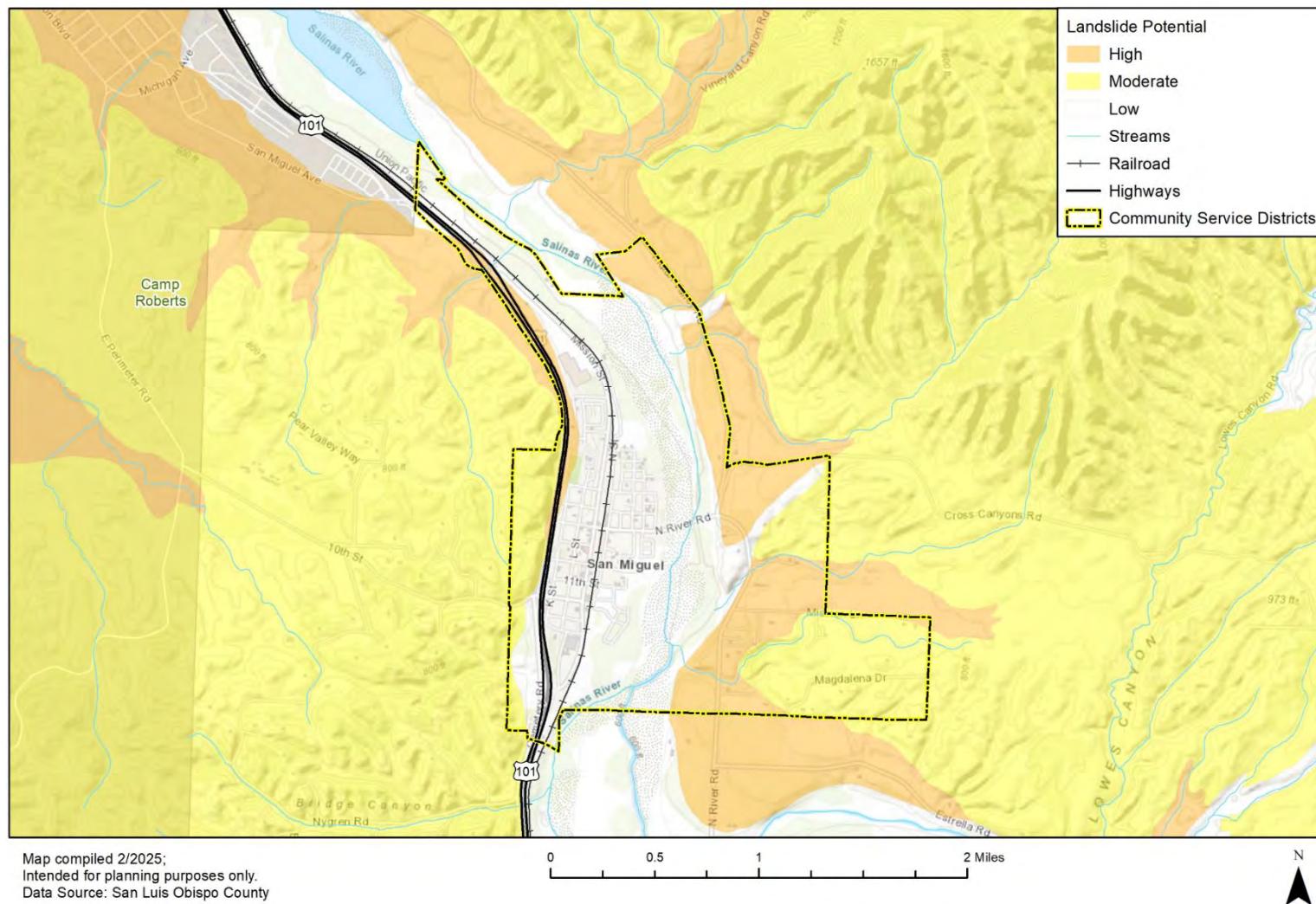
PROPERTY TYPE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	3	\$2,735,985	\$2,735,985	\$5,471,970	-
Mobile/Manufactured Homes	17	\$2,737,266	\$1,368,633	\$4,105,899	42
Multi-Family Residential	1	\$107,355	\$53,678	\$161,033	2
Residential	98	\$45,238,721	\$22,619,361	\$67,858,082	482
Vacant Improved	4	\$275,734	\$0	\$275,734	-
Total	123	\$51,095,061	\$26,777,656	\$77,872,717	526

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

The areas in San Miguel that have landslide potential are seen below in Figure O-5. Landslide potential looks to be concentrated near the borders of the service district as well as North River Road in the southern part of the service district.



Figure O-5 Landslide Potential Areas in San Miguel Community Services District





O.3.3.9 Wildfire

Wildfire is a **high significance** hazard for the San Miguel CSD and recently CalFire has designated San Miguel as an area at increased risk of wildfire. San Miguel is located in a rural area surrounded by rolling hills, oak woodlands, dry grasslands, and agricultural lands, which create abundant natural fuel for wildfire. During the summer and fall months, the region experiences prolonged dry conditions, high temperatures, and strong winds that can accelerate fire spread throughout the district. The district's fire station is also located in a high wildfire hazard zone, which poses a significant threat to the district's ability to respond quickly and efficiently to a fire emergency.

In San Miguel CSD, 532 properties are situated within wildfire hazard exposure zones ranging from moderate to very high risk. Of these, 304 properties are located in the High Fire Severity Zone and 228 properties fall within the Moderate Fire Hazard Severity zone. Collectively, these properties represent a total assessed value of \$236,857,724 and impact approximately 1,176 residents across all fire hazard severity zones. Table O-20 San Miguel CSD's Improved Properties Exposed to Fire Hazard Severity Zones by Property Type shows the properties in the district exposed to Fire Hazard Severity Zones. Figure O-6 depicts the Fire Hazard Severity Zones in San Miguel CSD.

GIS analysis shows the critical facilities in San Miguel CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there is a total of sixteen (16) critical facilities that fall in the high fire severity zone rating, none that fall into the very high and three (3) critical facilities moderate fire hazard severity zone rating.

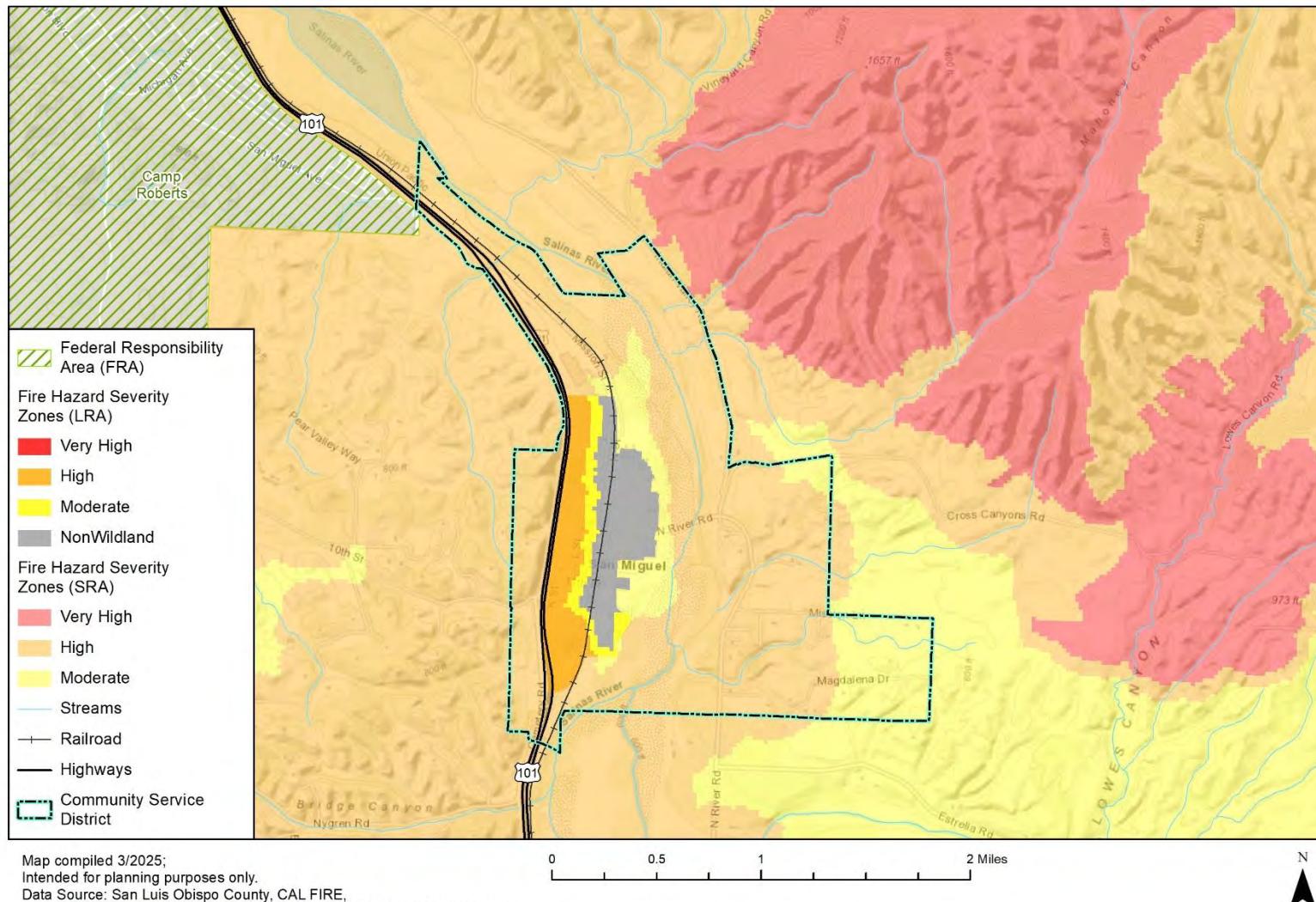
**Table O-20 San Miguel CSD's Improved Properties Exposed to Fire Hazard Severity Zones by Property Type**

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Agricultural	-	4	1	5	\$32,965,309	\$32,965,309	\$65,930,618	-
Commercial	-	9	11	20	\$6,455,098	\$6,455,098	\$12,910,196	-
Exempt	-	1	2	3	\$1,974,806	\$1,974,806	\$3,949,612	-
Industrial	-	1	2	3	\$75,185	\$112,778	\$187,963	-
Mixed Use	-	7	9	16	\$2,519,999	\$2,519,999	\$5,039,998	-
Mobile/Manufactured Homes	-	17	3	20	\$3,282,326	\$1,641,163	\$4,923,489	49
Multi-Family Residential	-	18	11	29	\$6,247,393	\$3,123,697	\$9,371,090	72
Residential	-	240	187	427	\$89,398,773	\$44,699,387	\$134,098,160	1,055
Vacant Improved	-	7	2	9	\$446,599	\$0	\$446,599	-
Total	0	304	228	532	\$143,365,488	\$93,492,236	\$236,857,724	1,176

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis



Figure O-6 Fire Hazard Severity Zones in San Miguel Community Services District





O.3.3.10 Hazardous Materials

The San Miguel LPT rated hazardous materials incidents as having **medium** overall significance. The Cal OES Spill Release Reporting Center reports 18 hazardous materials incidents in the San Miguel CSD from January 1st, 2019 through December 20th, 2024. This likely excludes a number of unreported minor spills. The 18 reported incidents constitutes 1.54% of the hazardous materials incidents reported countywide during the same time frame and averages out to roughly 1.16 incidents per year.

O.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 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 San Miguel CSD capabilities are summarized below.

O.4.1 Regulatory Mitigation Capabilities

Table O-21 identifies existing regulatory capabilities the CSD 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 Section 6 Capability Assessment of the Base Plan for specific information related to the County's mitigation capabilities.

Table O-21 San Miguel CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	No	Included in the San Luis Obispo County efforts
Zoning ordinance	No	Included in the San Luis Obispo County efforts
Subdivision ordinance	No	Included in the San Luis Obispo County efforts
Growth management ordinance	No	Included in the San Luis Obispo County efforts
Floodplain ordinance	No	Included in the San Luis Obispo County efforts
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	Included in the San Luis Obispo County efforts
Building code	No	Included in the San Luis Obispo County efforts
Fire department ISO rating	Yes	03/3X
Erosion or sediment control program	No	Included in the San Luis Obispo County efforts



REGULATORY TOOL	YES/NO	COMMENTS
Stormwater management program	No	Included in the San Luis Obispo County efforts
Site plan review requirements	No	Included in the San Luis Obispo County efforts
Capital improvements plan	Yes	Water, Wastewater Master Plans, & District Strategic Plan
Economic development plan	No	Included in the San Luis Obispo County efforts
Local emergency operations plan	No	Included in the San Luis Obispo County efforts
Other special plans	Yes	District Strategic
Flood Insurance Study or other engineering study for streams	No	Included in the San Luis Obispo County efforts
Elevation certificates (for floodplain development)	No	Included in the San Luis Obispo County efforts

Discussion on Existing Building Codes, Land Use and Development Regulations

In San Miguel CSD, land use authority is vested in the San Luis Obispo County Planning and Building department. This department ensures that all development projects comply with the county's General Plan and Land Use Ordinance (Title 22). The Planning Team noted that fire protection and life safety compliance within San Miguel are managed by the San Miguel Fire Department (SMFD), operating under the San Miguel Community Services District. SMFD is responsible for enforcing fire codes, ensuring adequate emergency access and implementing Wildland Urban Interface standard. Also, the Local Ordinance No. 01-2023, adopted by the San Miguel Community Services District, outlines specific fire protection requirements for new developments. This ordinance mandates compliance with the California Fire Code.

O.4.2 Administrative/Technical Mitigation Capabilities

Table O-22 identifies the personnel responsible for activities related to mitigation and loss prevention in the San Miguel Community Services District

Table O-22 Miguel CSD Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION/COMMENTS
Planner/engineer with knowledge of land development/land management practices	No	
Engineer/professional trained in construction practices related to buildings and/or infrastructure	No	District Engineer
Planner/engineer/scientist with an understanding of natural hazards	No	
Personnel skilled in GIS	No	
Full time building official	No	Fire Inspector/Plans Examiner
Floodplain manager	No	N/A
Emergency manager	Yes	Fire Chief
Grant writer	Yes	District Engineer
Other personnel	Yes	Fire Chief/Prevention Officer (Fire Inspector/Plans Examiner)
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	



PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION/COMMENTS
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	

O.4.3 Fiscal Mitigation Capabilities

Table O-23 identifies financial tools or resources that the City could potentially use to help fund mitigation activities.

Table O-23 San Miguel CSD Fiscal Mitigation Capabilities

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Community Development Block Grants	Yes
Capital improvements project funding	Yes (County)
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	No
Incur debt through special tax bonds	No
Incur debt through private activities	No
Withhold spending in hazard prone areas	No

O.4.4 National Flood Insurance Program

As a special district, San Miguel is not eligible to participate in the National Flood Insurance Program (NFIP) and does not have any mapped special flood hazard areas. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NFIP, located within the District.

O.4.5 Mitigation Outreach and Partnerships

San Miguel CSD promotes disaster preparedness through its official websites, offering resources and links to agencies such as CAL FIRE, the American Red Cross, and the California Department of Public Health. Also, the district's 2022-2027 Strategic Plan emphasizes the importance of community engagement and proactive planning. San Miguel Fire provides Fire Safety Education and participates in Fire Prevention Week annually. San Miguel Fire is also working together with the local schools to develop a disaster response plan for the schools in San Miguel.

Table O-24 San Miguel CSD Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO	NOTES
Hazard Awareness/Education Campaigns	Yes	
Firewise	Yes	
Storm Ready	Yes	
Severe Weather Awareness Week	Yes	
School programs	Yes	
Other	None	
Methods Used to Communicate Hazard Info. to the Public	Yes	Ready SLO
Local News	Yes	KSBY
Social media	Yes	



CAPABILITY TYPE	YES/NO	NOTES
Community Newsletters	Yes	
Utility Bill Inserts	Yes	
Community Events	Yes	Two Annually
Organizations that represent or work with underserved or vulnerable communities	Yes	
American Red Cross	Yes	
Salvation Army	Yes	
Veterans Groups	No	
Environmental/Conservation Groups	No	
Homeowner/Neighborhood Associations	Yes	
Chamber of Commerce	No	
Community Organizations (Lions, Kiwanis, etc.)	Yes	

O.4.6 Opportunities for Enhancement

Based on the capabilities assessment, the San Miguel Community Services District has several existing mechanisms in place that already 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 San Miguel Community Services District will lead to more informed staff members who can better communicate this information to the public.

O.5 Mitigation Strategy

O.5.1 Mitigation Goals and Objectives

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

O.5.2 Completed and Deleted 2019 Mitigation Actions

During the 2024 planning process the LLPT reviewed all the mitigation actions from the 2019 plan. During the 2024 planning process the Planning Team identified that none of the actions were completed or to be deleted, but one was in progress.

O.5.3 Mitigation Actions

The Planning Team for the San Miguel Community Services District identified and prioritized the following mitigation actions based on the conducted risk assessment (refer to Table O-25). Actions were prioritized using the process described in Section 7.2.1 of the Base Plan. Timeline and project cost definitions are noted in Section 7.3.2 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. Due to limited resources and District responsibilities, including limited staff time, the San Miguel CSD has chosen not to undertake mitigation actions against adverse weather, dam incidents, or landslides at this time.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Dense Fog/Freeze.



Table O-25 San Miguel Community Services District Mitigation Action Plan

ID	HAZARD(S) MITIGATED	DESCRIPTION/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	COST ESTIMATE & POTENTIAL FUNDING	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
SM.1	Wildfire	Improve ISO rating. As part of this project the District will sponsor a chipping program and green waste management program to support vegetation management/defensible space on properties within the district. The District will also provide public information to the Community Members on how to prepare homes, creating Defensible Space, and Ready Set Go information as well. In addition, the District is looking to purchase a 3,000-gallon tactical water tender.	San Miguel Fire Department; CAL FIRE	Moderate. Capital Funds	Medium	Short-term	Not started, researching grant funding options.
SM.2	Wildfire	Increase fire department staffing	San Miguel Fire Department	High. Property tax	Medium	Short-term	Not started, researching redistricting options to increase funding.
SM.3	Adverse Weather: Thunderstorm; Adverse Weather: High Wind; Adverse Weather: Extreme Heat, Flood, Earthquake	Replace the current wastewater treatment facility to current seismic and flood design standards and include backup power to mitigate service outages from various hazards.	San Miguel CSD Wastewater Services Department; Monsoon Consultants	Very High. Grants from DWR, USDA, and CBDC	Medium	Short-term	Not started, researching grant funding for facilities improvements.
SM.4	Drought and Water Shortage	Provide additional or larger water storage tanks	San Miguel CSD Water Services	High. San Miguel CSD General Fund and developers	Medium	3 years	Not started.
SM.5	Drought and Water Shortage, Landslide and Debris Flow, Earthquake	Replace aging water and wastewater underground piping that may be vulnerable to geologic hazards	San Miguel CSD Water Services; San Miguel Wastewater Services	High. San Miguel CSD General Fund and developers	Medium	3-4 years	In progress, projects are completed as funding becomes available
SM. 6	Adverse Weather: Thunderstorm; Adverse Weather: High Wind; Adverse	San Miguel Fire Department Divestiture and redistricting required to enhance public safety preventing wildfires and provide a funding source for mitigation of other	San Miguel Fire Department; CAL FIRE	Moderate. San Miguel CSD General Fund, In-Kind	High	3-5 Years	New in 2025. Additional funds would be utilized to hire Fire Department personnel, expand, and improve facilities, maintain equipment, and



ID	HAZARD(S) MITIGATED	DESCRIPTION/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	COST ESTIMATE & POTENTIAL FUNDING	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
	Weather: Extreme Heat, Dam Incidents,; Earthquake; Flood; Landslide and Debris Flow; Wildfire; HazMat	identified hazards. Divestiture of the San Miguel Fire Department from the San Miguel CSD would allow the Department to expand its Boundaries beyond the CSD Boundaries into the underserved unincorporated county areas allowing for funding to become available to the San Miguel Fire Department via a tax transfer of a portion of the taxes collected by the County at a rate similar to the rate currently collected within the current CSD boundaries.		(donated), Private Non-Profit			provide funding for an Equipment Replacement Program to meet future equipment needs. All of which equates to a higher level of Public Safety provided to the current District's and reconfigured District's population. Additional benefits to the residents of the CSD could be a reduction in property / fire insurance based on an improved ISO rating due to the enhanced staffing levels and proximity to the properties within the reconfigured boundaries. This process had been approved by the San Miguel Community Services Board of Directors via resolution 2024-56 approved on November 21, 2024, recognized in the 2022 San Miguel CSD Strategic Plan, and recognized in the 2024 San Miguel CSD LAFCO MSR.
SM.7	Adverse Weather: Thunderstorm; Drought and Water Shortage; Dam Incident; Earthquake; Flood	Emergency Water Shortage/ Bridge Isolation. The community of San Miguel is bisected by the Salinas River. Currently the District has insufficient emergency water storage, especially on the east side of the Salinas River. Due to the river crossing the community water supplies are vulnerable to catastrophic loss in the event that there is a failure of the River Road Bridge. Loss of the bridge, and the pipeline in it, can come from a significant earthquake, or it may be washed out due to a Heavy Rain event coupled with flooding. (For reference the River Road Bridge and other crossings in the San Miguel area have been washed out numerous times in the past 75	San Miguel CSD Water Department; County of SLO, OES, FEMA, State Water Resources Control Board	Very High. FEMA Hazard Mitigation Assistance Grant (HMGP, FMA), General Funds, In-Kind Donations	Medium	2-3 years	New in 2025.



ID	HAZARD(S) MITIGATED	DESCRIPTION/ BACKGROUND/ BENEFITS	LEAD AGENCY & PARTNERS	COST ESTIMATE & POTENTIAL FUNDING	2025 PRIORITY	TIMELINE	STATUS/ IMPLEMENTATION NOTES
		years.) Develop an emergency water storage and source for portions of the community on the east side of the Salinas River to mitigate this risk. Evaluate options to upgrade flood and seismic design levels on the bridge or replacing the bridge.					



O.6 Implementation and Maintenance

Moving forward, the San Miguel Community Services 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 7 Implementation and Monitoring of the Base Plan.

O.6.1 Incorporation into Existing Planning Mechanisms

The information in this plan, including the results of the Vulnerability Assessment and the Mitigation Strategy, will inform the development and updates of local plans, programs and policies, such as the 2020 Water Master Plan and the 2016 District Strategic Plan..

Understanding the hazards that pose a risk and the specific vulnerabilities to the jurisdiction will help in future capital improvement planning for the District. The 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 San Miguel Community Services District area. As noted in Section 8 Implementation and Monitoring, the County's HMPC representatives from the San Miguel Community Services 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 meeting.

O.6.2 Monitoring, Evaluation and Updating the Plan

The San Miguel Community Services 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 the County HMPC, and for coordination with County staff and departments during plan updates. The San Miguel Community Services 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 P San Simeon Community Services District

P.1 District Profile

P.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 Hazard Mitigation Plan update. The previous HMP was not integrated into any planning mechanisms. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The General Manager of the San Simeon Community Services District was the representative on the county Hazard Mitigation Planning Committee (HMPC) and took the lead for developing this annex in coordination with the San Simeon Community Services District (CSD) Local Planning Team (Planning Team). The CSD participated in the 2025 update by email correspondence and provided input to the planning effort through a Plan Update Guide. The local (District) Planning Team will be responsible for implementation and maintenance of the plan. Table P-1 summarizes the District's planning team for the plan revision process.

Table P-1 San Simeon CSD Hazard Mitigation Plan Planning Team

STAKEHOLDER GROUP	DEPARTMENT	TITLE
Local Planning Team	Administration	General Manager
	Administration	Office/bookkeeper
	Administration	GM/office asst
	Water/Sewer Operations	FRM Operations
Agencies involved in hazard mitigation activities	Cal Fire- Cambria Station 10	Unit Chief
Agencies that have the authority to regulate development	County Planning and Building	Senior Planner
Neighboring Communities	Cambria Community Services District	General Manager
Representatives of business academia, and other private orgs	San Simeon Chamber of Commerce	President
Representatives supporting underserved communities	County of San Luis Obispo Homeless Services Oversight Council	Director

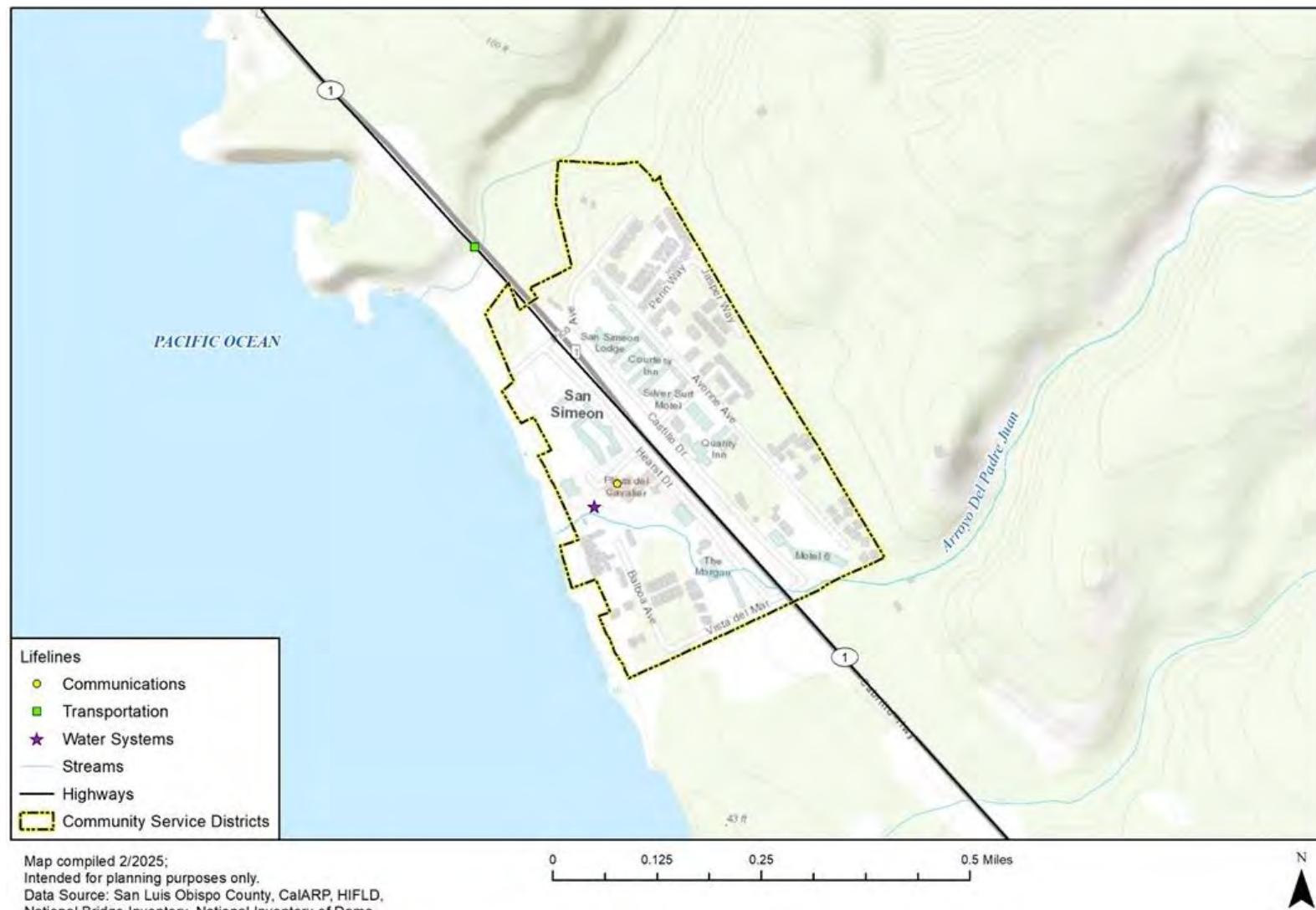
More details on the planning process and how the jurisdictions, Services Districts, and stakeholders participated can be found in Section 3 of the Base Plan, as well as how the public was involved during the 2025 update.

P.1.2 District Overview

San Simeon is a small unincorporated community that is part of the North Coast planning area in San Luis Obispo County. The population was about 462 according to the 2010 Census. San Simeon is located along State Highway 1 about five minutes north of the community of Cambria. It is bordered on the west by the Pacific Ocean and on the east by open space owned by Hearst Corporation. Figure P-1 shows the San Simeon Community Services District boundaries and geographic context. The major land holding in the area is the Hearst Ranch, which encompasses 77,000 acres north of Pico Creek. San Simeon is located on a coastal plain; its climate is considered Mediterranean and is moderated somewhat by its proximity to the Pacific Ocean.

Founded in 1836, San Simeon was first established when the San Miguel Mission was secularized and divided into three distinct ranches: Piedras Blancas, Santa Rosa, and San Simeon. In the years after its founding, the town became known for its whale watching. Modern development in the area began in the 1960s, and the primary economic activity in the area is now tourism. The San Simeon Community Services District was founded in 1961 for the purpose of providing San Simeon with safe, adequate and reliable utility services in an environmentally sensitive and economically responsible manner. Because tourism represents a major component of the CSD's economy, water use, and wastewater production notably increase in the spring and summer months. Recycled water service as well as reverse osmosis has been implemented in recent years, and a 150,000-gallon storage service with approximately 397 customer accounts are now offered in San Simeon.

Figure P-1 San Simeon Community Services District



The U.S. Census Bureau estimated the San Simeon Census Designated Place's (CDP) 2023 population as 523, a 1.9% increase from 513 in 2012. Table P-2 shows an overview of key social and demographic characteristics of the CDP taken from the U.S. Census Bureau's American Community Survey.

Table P-2 San Simeon CDP Demographic and Social Characteristics, 2018-2023

SAN SIMEON CDP	2018	2023	% CHANGE
Population	583	513	-12%
Median Age	33.2	59.3	+78.6%
Total Housing Units	347	296	-14.7%
Housing Occupancy Rate	76.9%	58.4%	-24%
% of Housing Units with no Vehicles Available	12.7%	0%	100%
Median Home Value	\$609,717	\$687,000	+12.7%
Unemployment	8%	0%	100%
Mean Travel Time to Work (minutes)	13.2	NA	NA
Median Household Income	NA	\$54,705	NA
Per Capita Income	\$26,379	\$29,852	+13.2%
% of Individuals Below Poverty Level	6.1%	4%	-34.4%
# of Households	267	173	-35.2%
Average Household Size	2.09	1.74	-16.7%
% of Population Over 25 with High School Diploma	80.2%	53.5%	-33.3%
% of Population Over 25 with Bachelor's Degree or Higher	13.4%	4.1%	-69.4%
% with Disability	3.4%	4%	+17.6%

Source: U.S. Census Bureau American Community Survey 2018-2023 3-Year Estimates, www.census.gov/

Note: Data is for the San Simeon Census Designated Place (CDP) which may not have the same boundaries as the San Simeon Community Services District.

Table P-3 shows how the San Simeon CDP's labor force breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey.

Table P-3 San Simeon CDP Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (16 years and older)	301	
In Labor Force	169	56%
Agriculture, forestry, fishing and hunting, and mining	-	-
Armed Forces	-	-
Construction	-	-
Manufacturing	-	-
Wholesale trade	-	-
Retail trade	-	-
Transportation and warehousing, and utilities	-	-
Information	-	-
Finance and insurance, and real estate and rental and leasing	29	9%
Professional, scientific, and management, and administrative and waste mgmt. services	-	-

INDUSTRY	# EMPLOYED	% EMPLOYED
Educational services, and health care and social assistance	31	10%
Arts, entertainment, and recreation, and accommodation and food services	138	45.8%
Other services, except public administration	-	-
Public administration	-	-
Unemployed	-	-

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

Note: Data is for the San Simeon Census Designated Place (CDP) which may not have the same boundaries as the San Simeon Community Services District.

Note: A symbol of “-” indicates that the metric in question is unknown or undetermined.

Table P-4 San Simeon CPD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (2023)	301	
In Labor Force	169	56%
Management, business, science, and arts occupations	-	-
Service occupations	138	81.7%
Sales and office occupations	31	18.3%
Natural resources, construction, and maintenance occupations	-	-
Production, transportation, and material moving occupations	-	-

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

P.1.3 Development Trends

As of 2025 San Simeon is only at about 43% of its planned population capacity of 1,200. Growth rates in the North Coast region of San Luis Obispo County have traditionally been high, but growth rates in San Simeon have been declining during the past ten years due to resource constraints and development restrictions. The County's Growth Management Ordinance limits county-wide growth to 2.3%.

San Simeon's economy is driven by tourism and recreation-based economic development with new expansion including motels, restaurants, and retail shops to draw in more tourists. According to the North Coast Area Plan, the community does not believe that sustaining past growth rates is wise and has no intent to do so. Overcrowding of the day use and overnight facilities at San Simeon recreation areas underscores this point, as does the need for more visitor facilities. Improvements to the Hearst Ranch are being planned and are detailed in the North Coast Area Plan, as are intensive visitor-serving commercial centers which are currently in the conceptual planning stages. These increases in tourists and visitors may present new challenges for evacuation and hazard awareness efforts, as tourists may be unfamiliar with the area, its risks, and how to respond to them.

The LPT notes that there has been no new development within San Simeon since the last plan update in 2020; thus there has not been an increase or decrease in vulnerability for the residents and infrastructure of the district to any of the hazards identified in Section P.3.2.

P.1.4 Other Community Planning Efforts

The 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.

San Simeon and the San Simeon CSD are 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 CSD Annex involved a comprehensive review of existing plans, studies, reports, and initiatives from San Luis Obispo County and the San Simeon community that relate to hazards or hazard mitigation, as summarized in Table P-5 below. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the San Simeon Specific Plan, there are County planning mechanisms that regulate future and existing development within the San Simeon CSD planning area. Refer to Section P.4 Capability Assessment as well as the Base Plan for more information on the plans, policies, regulations and staff that govern the San Simeon CSD.

Table P-5 Summary of Review of Key Plans, Studies and Reports for the San Simeon CSD

PLAN, STUDY, REPORT NAME	HOW THE DOCUMENT INFORMED THIS ANNEX
San Simeon CSD Master Plan (Draft 2018)	Obtained key information on the CSD, its history, hazards of interest, etc.
North Coast Area Plan (Revised 2018)	Obtained water use information, drought related details, etc.
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 (2014)	Informed past hazard event history as well as information on county programs, etc.
San Luis Obispo County - Community Wildfire Protection Plan (March 2019)	Informed the Vulnerability Assessment for Wildfire risk
San Luis Obispo County 2014 Integrated Regional Water Management Plan	Obtained information on water use in the CSD, 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
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 San Simeon as related to drought
Coastal Zone Framework for Planning (Revised September 2018)	This Framework for Planning for the Coastal Zone is a General Plan Element that accompanies the Coastal Zone Land Use Ordinance (Title 23) for the County of San Luis Obispo
Title 23 Coastal Zone Land Use Ordinance (Revised September 2018) - County of San Luis Obispo	Pulled information on land use codes
Ordinance No. 112	An Ordinance of the Board of Directors of the San Simeon Community Services District Mandating Use of Recycled Water Strictly for the San Simeon Community Services District's Recycled Water Facilities

P.2 Hazard Identification and Summary

The San Simeon CSD planning team identified the hazards that affect the District and summarized their frequency of occurrence, spatial coverage, potential magnitude, and significance specific to the San Simeon CSD (see Table P-6). There are no hazards that are

unique to the District. Note that some hazards may have been added to include ratings due to their relevance in the CSD, or because GIS analysis shows they could cause damages or losses in the community.

Table P-6 San Simeon CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm/ Heavy Rain/ Dense Fog	Significant	Likely	Negligible	Medium
Adverse Weather: High Wind and Tornado	Significant	Likely	Limited	Low
Adverse Weather: Extreme Heat	Significant	Occasional	Negligible	Low
Coastal Storm/Coastal Erosion/Sea Level Rise	Significant	Likely	Limited	Low
Drought and Water Shortage	Significant	Likely	Limited	Medium
Earthquake	Significant	Likely	Limited	High
Flood	Limited	Likely	Negligible	Low
Tsunami	Limited	Unlikely	Negligible	Low
Wildfire	Significant	Likely	Limited	Medium
Human Caused: Hazardous Materials	Limited	Highly Likely	Negligible	Medium
Geographic Area Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area	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			
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.	Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact			

P.3 Vulnerability Assessment

The intent of this section is to assess the San Simeon CSD's vulnerability separate from that of the planning area (San Luis Obispo County), 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 (e.g., critical facilities) at risk to hazards ranked of medium or high significance that may vary from other parts of the planning area, or

hazards that are rated as Low, but which may be worth noting due to risk of property and populations.

The key information to support the Hazard Identification and Risk Assessment (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 San Simeon CSD 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 (See Table 5.1 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 P-6). Identifying these differences helps the reader to differentiate the District's risk and vulnerabilities from that of the overall County.

P.3.1.1 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 mitigation actions:

- Agricultural Pests and Plant Diseases
- Biological Agents
- Dam Incidents
- Subsidence
- Landslide/Debris Flow

P.3.1.2 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. See Section 5.2 of the Base Plan (Asset Summary) for more details and background on the parcel summarization, analysis, and datasets available.

P.3.1.3 Values at Risk

The following data on property exposure is derived from the San Luis Obispo County's Assessor data. This data should only be used as a guideline for overall values in the Community Services District as the information has some limitations. Table P-7 summarizes the exposure of properties (e.g., the values at risk) broken down by property type for the San Simeon Community Services District.

Table P-7 Exposures for the San Simeon CSD by Parcel Type

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE
Commercial	18	\$33,807,663	\$33,807,663	\$67,615,326
Exempt	2	\$0	\$0	\$0
Mixed Use	4	\$848,144	\$848,144	\$1,696,288
Mobile Home	1	\$371,422	\$185,711	\$557,133
Multi Family Residential	6	\$3,757,442	\$1,878,721	\$5,636,163
Residential	154	\$31,823,262	\$15,911,631	\$47,734,893
Vacant Improved	1	\$20,966	\$20,966	\$41,932
Total	186	\$70,628,899	\$52,652,836	\$123,281,735

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis

P.3.1.4 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 San Luis Obispo County and its jurisdictions' and districts' planning teams 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.

Based on the datasets provided by the San Luis Obispo County GIS Department and the San Simeon CSD Planning Team, along with those structures supplemented from the Homeland Infrastructure Foundation-Level Dataset (HIFLD), there is only one critical facility found within the San Simeon Community Services District boundaries. It is the San Simeon Wastewater Treatment Plant located at 9245 Balboa Ave. This facility is shown on a map of the CSD in Figure P-1 above, classified as a Lifeline Utility System facility.

P.3.1.5 Additional Critical Facilities

Additional critical facilities as identified by the San Simeon CSD Planning Team are as follows:

- District Office – \$395,000 replacement value
- Senior Mobile Home Park
- Wells 1 & 2 – \$600,000 replacement value (combined)
- Water Treatment Plant – \$1.5 million replacement value
- Reservoir – \$750,000 replacement value
- Recycled Water Plant – \$500,000 replacement value
- Wastewater Treatment Plant - \$6,000,000 replacement value
- Water & Sewer Pipes – \$11.2 million replacement value (about 2 miles of water distribution system plus 2 miles of collection system)
- Critical Roads – \$832,000 replacement value (about 2 miles of roads)
- Reverse Osmosis - \$1,500,000
- Pico Creek – natural resource

P.3.1.6 Emergency Service Facilities/Support from Other Communities

The CSD is serviced by Cal Fire Station 10 in Cambria and the San Luis Obispo County Sheriff. The 2005 Cambria and San Simeon Acres Community Plans of the North Coast Area Plan Final Environmental Impact Report indicated that emergency response is a significant unmet need.

Transportation, High Potential Loss, and Lifeline Facilities

The San Simeon CSD provides water and wastewater services to San Simeon and the surrounding community. The San Simeon Wastewater Treatment Plant is the main critical facility of interest analyzed throughout this document, and is located on the west of San Simeon, along the Arroyo del Padre Juan stream and on the coast. The Pico Creek groundwater basin is the sole source of potable water for the community, and the District manages two primary production wells in the basin. The District shares a third emergency well with Hearst Corporation. The CSD also owns and operates a recycled water system which provides tertiary treated and disinfected recycled water that is permitted by the Regional Water Quality Control Board (RWQCB) for irrigation use within the community. A reverse osmosis treatment unit is operated during high chloride events caused by the intrusion of seawater into the Pico Creek aquifer. Improvements to the water, recycled water, and

wastewater treatment plants have been proposed and are detailed in the San Simeon CSD Master Plan. The most urgent concern fitting these categories of critical facilities is the addition of potable water storage beyond the existing 150,000-gallon reservoir to meet regulatory and fire prevention needs.

State Highway 1 runs through San Simeon; about 75% of the community lies to the west while the remainder lies to the east of the highway (in terms of properties and commerce). Visitors to Hearst Castle increase traffic on Highway 1, making pedestrian and cyclist crossing of the highway difficult. The North Coast Area Plan recommends providing a seasonal shuttle service to reduce traffic and constructing an improved pedestrian crossing on the highway. Highway 1 is maintained by the California Department of Transportation (Caltrans), while Hearst Drive, Castillo Avenue, and San Simeon Avenue are maintained by the District and the County. Other streets are maintained by residents. Pavement improvements have been recommended and are detailed in the San Simeon CSD Master Plan.

P.3.1.7 Historic and Cultural Resources

Historical assets include local, county, state, and potentially federally listed historic sites. San Simeon hosts two state-designated historical landmarks: the Hearst San Simeon State Historical Monument and the Sebastian Store. William Randolph Hearst was an American businessman and newspaper publisher who inherited the Hearst Ranch near San Simeon from his father. Beginning in 1919, Hearst began construction of a castle on the property that was donated to the State in 1958 by Hearst Corporation in memoriam. The monument brings in one million visitors annually and was once home to exotic animals such as zebras which now roam free in the area. William Randolph Hearst Memorial Beach, a popular destination in the area, also bears his name. The Sebastian Store is the oldest store building on the North Coast of San Luis Obispo County. It was built in the 1860s and has been operated by the Sebastian family for over 50 years.

P.3.1.8 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. 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. All undeveloped shoreline in the North Coast planning area is classified as Sensitive Resource Areas. The North Coast Area Plan (2018) also designated the following combining designations that apply to the protection of special resources in the San Simeon community:

San Simeon Point – This picturesque setting includes Monterey pines, cypress trees, tilted rock formations, and excellent views of the bay and ocean shoreline. While not biologically unique, the combined sensitivity of vegetation and viewshed make an SRA designation appropriate. Nonetheless, proposed development could be sited so as not to damage either the vegetation or viewshed through appropriate mitigation measures.

San Simeon Fault (Geologic Study Area) – The San Simeon Fault Zone traverses the coastal area from San Simeon Point to the north side of the mouth of San Carpoforo Creek. In 1986, the State geologist determined this fault zone to be active and designated it as a special studies zone subject to the provisions of the Public Resources Code.

The North Coast Area Plan lists the protection of coastal resources such as “wetlands, coastal streams, forests, marine habitats, and wildlife, including threatened and endangered species” as a planning goal for San Simeon and Cambria. Supporting the efforts of Monterey Bay National Marine Sanctuary, which runs through San Simeon, is also listed as a goal. This protected coastline is home to a large population of elephant seals at the Piedras Blancas Elephant seal Rookery seven miles north of San Simeon. Pico Creek and other area creeks are

also significant in that they support a number of declining species, such as the tidewater goby, striped garter snake, western pond turtle, red-legged frog (federally listed as threatened), and steelhead trout.

P.3.1.9 Economic Assets

The major industry in San Simeon is hospitality. The area welcomes tourists to its beaches, restaurants, and aforementioned historical and cultural attractions.

P.3.2 Estimating Potential Losses

Note: This section details vulnerability to specific hazards of high or medium significance, where quantifiable, and/or where (according to Planning Team input or vulnerability assessment analysis) it should be of concern.

Table P-7 summarizes San Simeon's exposure in terms of number and value of parcels falling within the District's boundaries. San Luis Obispo County parcel and assessor data were used to calculate the improved value of parcels, using spatial layers on parcel geometry. The most vulnerable structures are those in the parcels within hazard threat areas, unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building or land regulatory codes. Impacts of past events and vulnerability to specific hazards are further discussed below as particular to each hazard. See Section 5 of the Base Plan for more information on assets, parcel analysis methodology, and hazard profiles.

P.3.2.1 Adverse Weather: Thunderstorm/Heavy Rain/ Dense Fog

Adverse weather in the San Simeon Community Services District includes thunderstorms, heavy rain, and dense fog. The overall significance rating for San Simeon is **low**. The entire property and facility inventory noted in Section P.3.1.2, as well as the population, of San Simeon is exposed to the impacts of thunderstorm/heavy rain/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. San Simeon CSD 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 20 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 Santa Maria weather station is the nearest official reporting site to San Simeon CSD.

Table P-8 San Simeon Climate Summary Table - Weather (Period of Record: 08/01/1938 - 06/03/2005)

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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 32°F MEAN # DAYS
Winter	58.9 °F	46.1 °F	82 °F	2/12/1943	29 °F	2/2/1939	0	0.3
Spring	58.3 °F	46.7 °F	79 °F	5/10/1941	32 °F	4/1/1955	0	0
Summer	61.3 °F	50.9 °F	80 °F	7/18/1951	37 °F	8/18/1954	0	0
Fall	62.8 °F	50.9 °F	90 °F	10/24/1965	33 °F	11/19/1964	0	0
Annual	60.5 °F	48.6 °F	90 °F	10/24/1965	29 °F	2/2/1939	0	0.2

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 P-9 San Simeon Climate Summary Table – Precipitation (Period of Record: 08/01/1938 - 06/03/2005)

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	11.59 in.	36.32 in.	1969	3.31 in.	1964	5.28 in.	1/19/1969	3.2
Spring	4.91 in.	15.51 in.	1958	0.18 in.	1959	2.54 in.	3/3/1949	1.4
Summer	0.1 in.	0.68 in.	1958	0 in.	1942	0.68 in.	8/16/1958	0
Fall	3.36 in.	9.02 in.	1965	0.66 in.	1959	3.48 in.	11/14/1965	0.8
Annual	20.69 in.	41.86 in.	1969	9.7 in.	1959	5.28 in.	1/19/1969	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

P.3.2.2 Adverse Weather: High Wind and Tornado

San Simeon CSD's risk and vulnerability to this hazard does not differ significantly from that of the County overall significance of **low**. The entire property and facility inventory, as well as the population, of San Simeon is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. A Senior Mobile Home Park noted in the District's assets (in P.3.1.4) may be uniquely vulnerable. While these hazards are not common in the region they can occasionally occur during strong storm systems, particularly in the winter months. San Simeon 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.

P.3.2.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for San Simeon CSD. The entire property and facility inventory, as well as the population, of San Simeon is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean high fall temperature for San Simeon is 62.8 °F; however, temperatures up to 90°F have been recorded (see Table P-8). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

Prolonged heatwaves can reduce stream flows in Pico Creek, the CSD's water source, leading to water supply shortages as demand increases. Additionally, extreme heat can impair the efficiency of the CSD's coastal wastewater treatment plant, which is already at risk from sea-level rise and erosion. These impacts can strain essential services and pose serious health risks to residents, especially older adults and medically vulnerable individuals.

P.3.2.4 Coastal Storm/Coastal Erosion/Sea Level Rise

Coastal storm is a **low** significance hazard for the San Simeon CSD. The low cliffs and rolling coastal hills in San Simeon are vulnerable to coastal erosion and coastal bluff retreat. The San Simeon Wastewater Treatment Plant and other low-lying infrastructure such as roads and storm drains are especially vulnerable to coastal hazards. Approximately 2.8 miles of Highway 1 at Piedras Blancas north of San Simeon was recently relocated inland due to damage from coastal bluff erosion. Coastal bluff retreat rates may accelerate with sea level rise.

A flood hazard also exists during periods of intense or prolonged rainfall in Pico Creek. Heavy rain in January 2017 caused \$38,457 in damage to the Pico Beach stairs, sidewalk, and parking

lot. Runoff had caused the embankment to become unstable and slip as native soil was washed to sea. The District received an emergency temporary repair permit to install gabion stone baskets to stabilize the hillside. On June 1 of the same year, heavy rains caused the storm drain at 9260 Castillo Drive to collapse, creating a sink hole in the parking lot of the property. The sink hole was repaired at an initial cost of \$1,000 but required additional repairs later. See Section 5 of the Base Plan for more information on coastal hazards.

As part of the 2019 and 2025 HMP planning efforts, a sea level rise risk assessment was completed to determine how sea level rise may affect coastal jurisdictions and critical facilities and how coastal flooding might be exacerbated in the future. The only critical facility that would be affected by sea level rise is the San Simeon Wastewater Treatment Plant which is at risk in a sea level rise scenario of 25 cm or greater. The tables below summarize the other properties at risk of inundation by sea level rise and sea level rise combined with a 1% annual chance coastal flood. The area of inundation by sea level rise and sea level rise combined with the 1% coastal flood are shown in Figure P-2 and Figure P-3 respectively. 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.

Table P-10 Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Commercial	--	--	--	--	1	1
Multi-Family Residential	--	--	--	--	--	22
Other/Exempt/Misc.	--	--	--	--	--	2
Total	--	--	--	1	1	25

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Table P-11 Improved Values of Properties Inundated by Sea Level Rise and Sea Level Rise with 1% Annual Chance Flood

PROPERTY TYPE	25-CM SLR	75-CM SLR	300-CM SLR	25-CM SLR W/1% FLOOD	75-CM SLR W/1% FLOOD	300-CM SLR W/1% FLOOD
Commercial	--	--	--	--	--	\$1,282,318
Multi-Family Residential	--	--	--	--	--	\$ 6,149,876
Other/Exempt/Misc.	--	--	--	--	--	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$7,432,194

Source: San Luis Obispo County Assessor Data November 15, 2024, USGS CoSMoS v3.1, WSP GIS Analysis

Figure P-2 San Simeon Sea Level Rise Scenario Analysis: Tidal Inundation Only

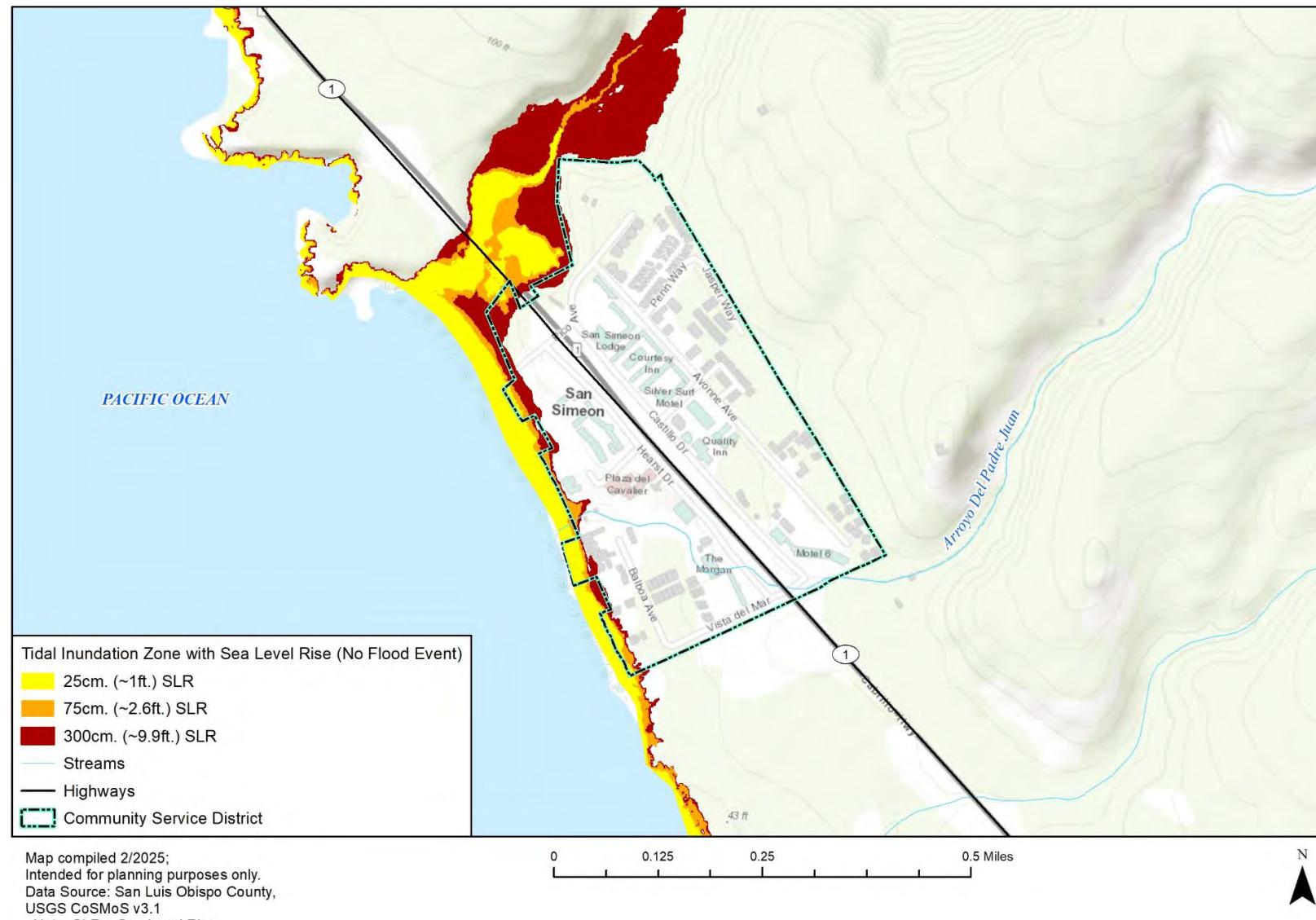
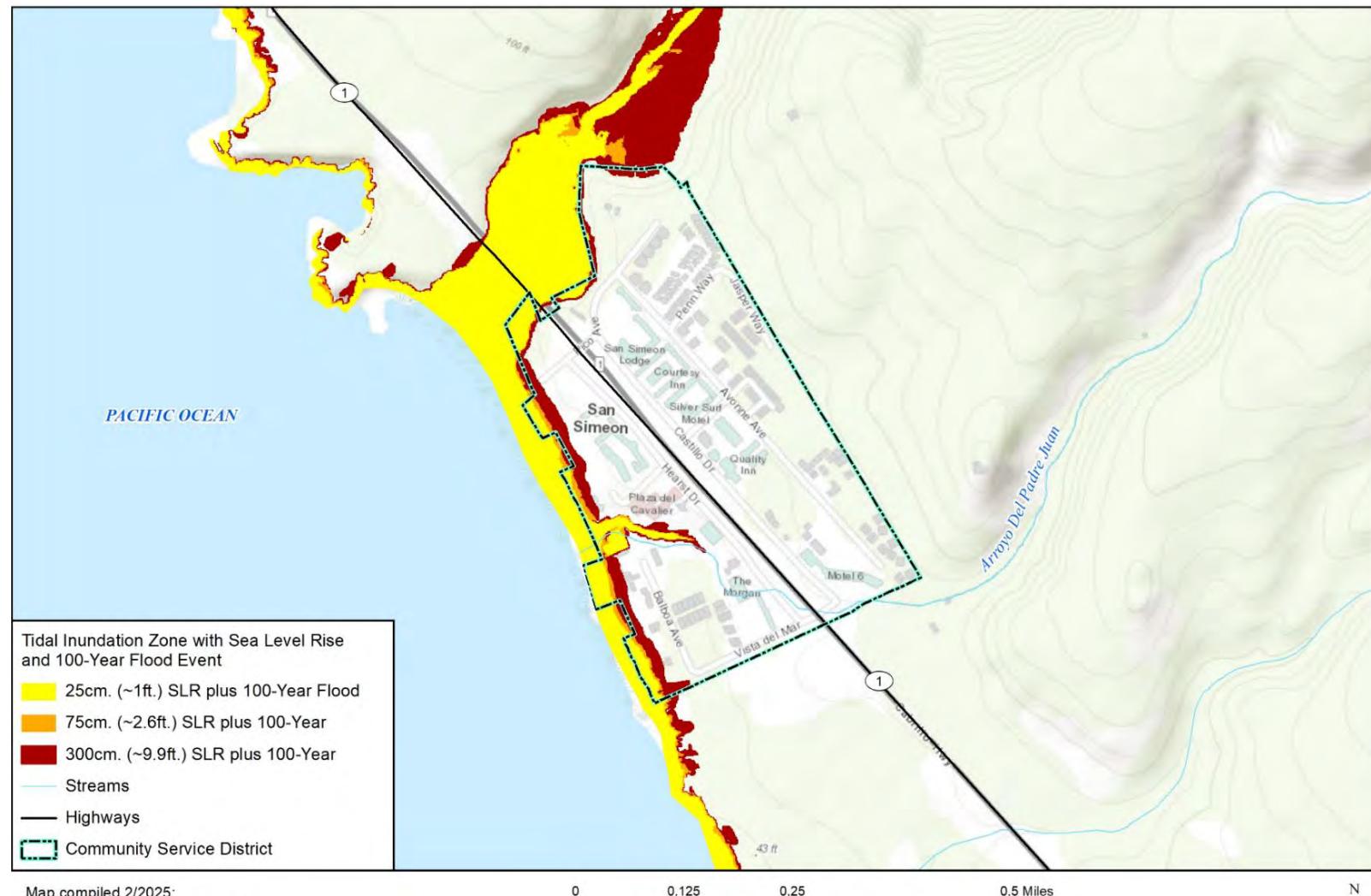


Figure P-3 San Simeon Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood



P.3.2.5 Drought and Water Shortage

Drought is a **medium** significance hazard for the San Simeon CSD. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts do not vary in San Simeon significantly. San Simeon receives 20 inches of precipitation annually. The existing permit from the County Health Department allows for the withdrawal of 140 acre-feet per year from the existing wells while the safe yield of the Pico Creek groundwater basin is estimated to be about 120 to 130 acre-feet per year. Due to fluctuations in rainfall, the location of the groundwater basin relative to the coast, and high groundwater withdrawals, water shortages have been declared several times in past decade. Growth in recent years has been held to the 1986 moratorium level due to the potable water supply shortage. Detailed information on potable water demand can be found in the San Simeon CSD Master Plan as well as Section 5.3.6 of the Base Plan.

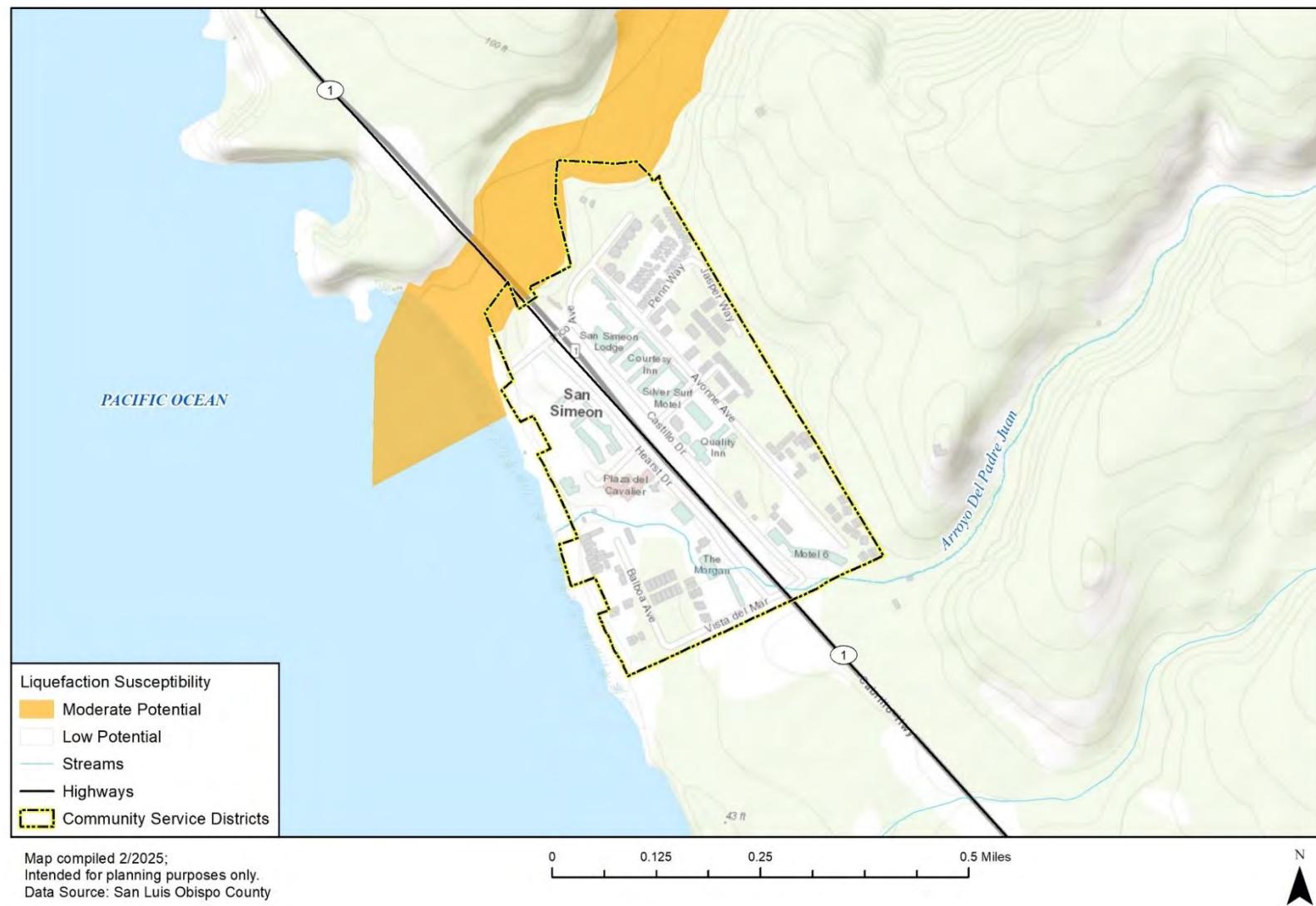
The San Simeon CSD faces significant drought-related challenges due to its sole reliance on local water sources, making it particularly vulnerable to prolonged dry periods. Without access to imported water supplies, the community is highly susceptible to groundwater depletion and saltwater intrusion, both of which threaten long-term water security. Historical droughts, such as those from 2012-2016 and 2020-2022, led to emergency conservation measures, declining well levels, and increased water restrictions. Tourism-dependent businesses add seasonal demand fluctuations, further straining limited resources during peak drought periods. Additionally, the lack of large-scale water storage infrastructure limits the community's ability to buffer against multi-year droughts and maintain supply reliability.

P.3.2.6 Earthquake

Earthquake is considered to be a **high** significance hazard for the San Simeon CSD and all assets and population noted in Section P.3 are potentially exposed. San Simeon is located near the San Simeon-Hosgri fault system which is considered to be active. The 6.5-magnitude San Simeon earthquake struck six miles from San Simeon on December 22, 2003. The earthquake caused significant property damage and two fatalities in nearby Paso Robles but only caused minor damage to structures in San Simeon. The Governor of California declared a state of emergency, and the President signed a federal major disaster declaration. The San Simeon CSD submitted a Request for Public Assistance, citing damage to the District Office but later withdrew the application after determining that there was little impact on the office. However, \$5,000 was spent on other repairs and inspections including that of the sewer line. An additional \$15,676 was spent repairing the electrical panel at the wastewater treatment plant which was destroyed once power was restored after the earthquake. See Section 5.3.7 of the Base Plan for more information on the earthquake hazard as a whole as well as details particular to the San Simeon CSD.

With regards to liquefaction, none of the San Simeon CSD property inventory or critical facilities are located in moderate or high liquefaction risk areas.

Figure P-4 San Simeon CSD Liquefaction Susceptibility



P.3.2.7 Flood

The San Simeon CSD gave flood a **low** overall significance rating. The main sources of flooding in and north of the San Simeon CSD are the Arroyo del Padre Juan, which crosses the District from the southeast and outflows into the Pacific Ocean on the central-west portion of the District, and the Pico Creek to the north, which barely touches the north boundary of the community. Some coastal flooding also occurs from the west side (where the Ocean and the CSD meet) but based on GIS analysis of the parcels in the CSD and FEMA's Flood Hazard Areas, only 4 improved parcels would be flooded by the 100-year event. See Table P-12 for a summary of parcels flooded and their values and refer to Figure P-5 for a map of the flood hazards and flooded improved parcels. There is no resident population at risk since these are commercial structures, but a flood could have some impact on the local economy.

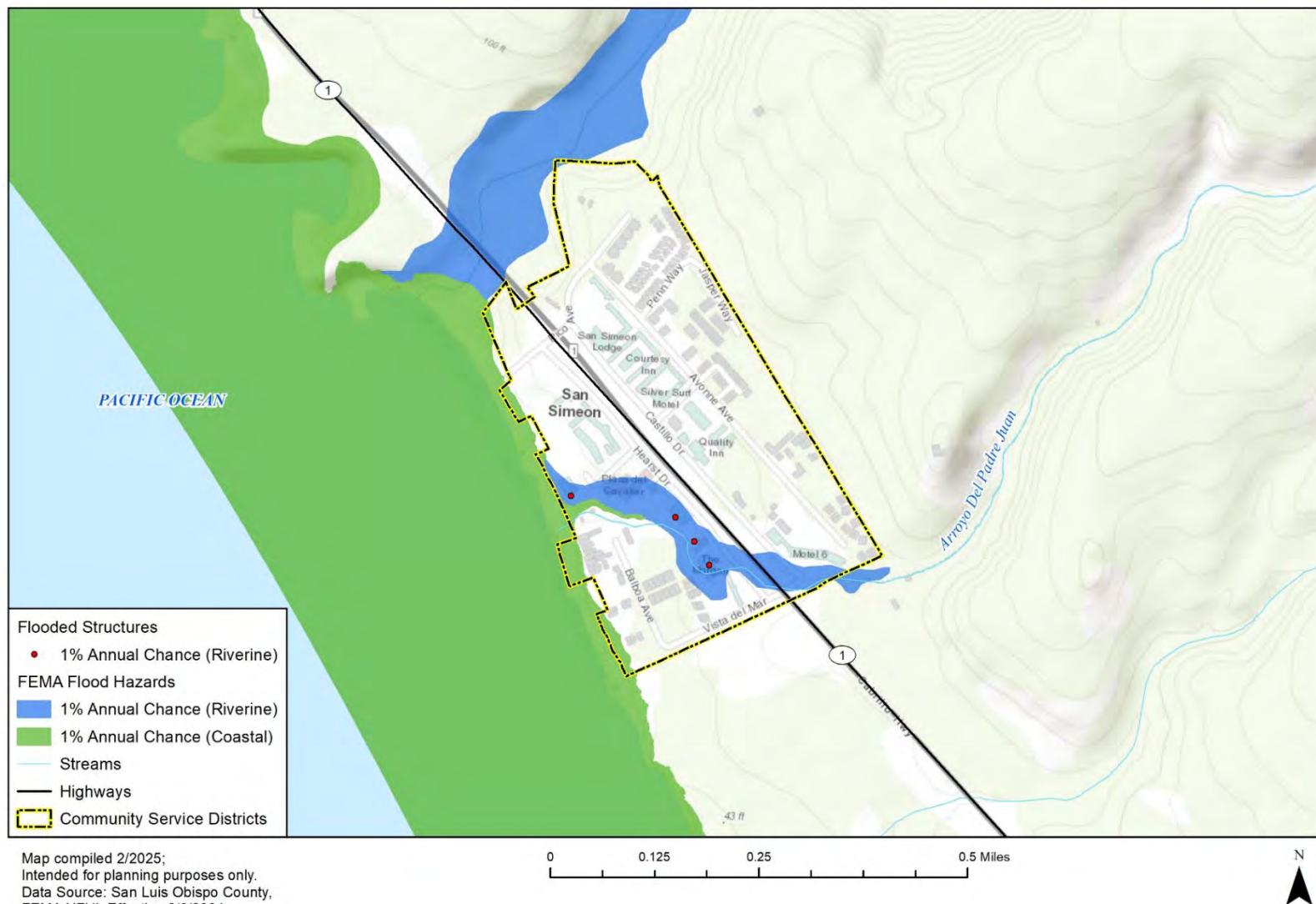
Table P-12 Flooded Structures in the San Simeon CSD by Parcel Type

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Commercial	4	\$7,115,563	\$7,115,563	\$14,231,126	\$3,557,782	--
TOTAL	4	\$7,115,563	\$7,115,563	\$14,231,126	\$3,557,782	--

Source: San Luis Obispo County Planning and Building Dept., Assessor's Office, WSP Parcel Analysis, FEMA

San Simeon does not participate separately in the National Flood Insurance Program (NFIP) but will continue to support the County's participation in and compliance with the NFIP. With regards to Critical Facilities, the San Simeon Wastewater Treatment Plant was found to fall within the VE FEMA floodplain, as the facility is located on the coast and hence is exposed to coastal flooding hazards.

Figure P-5 Flooded Parcels in the San Simeon Community Services District



P.3.2.8 Tsunami

The San Simeon Community Service District has rated tsunami as **low** significance within its jurisdiction. Tsunami inundation poses a risk to all coastal communities in the County of San Luis Obispo. Specific to the San Simeon CSD, the most severe tsunami inundation would occur on the north end of the district at the mouth of Pico Creek (see Figure P-6).

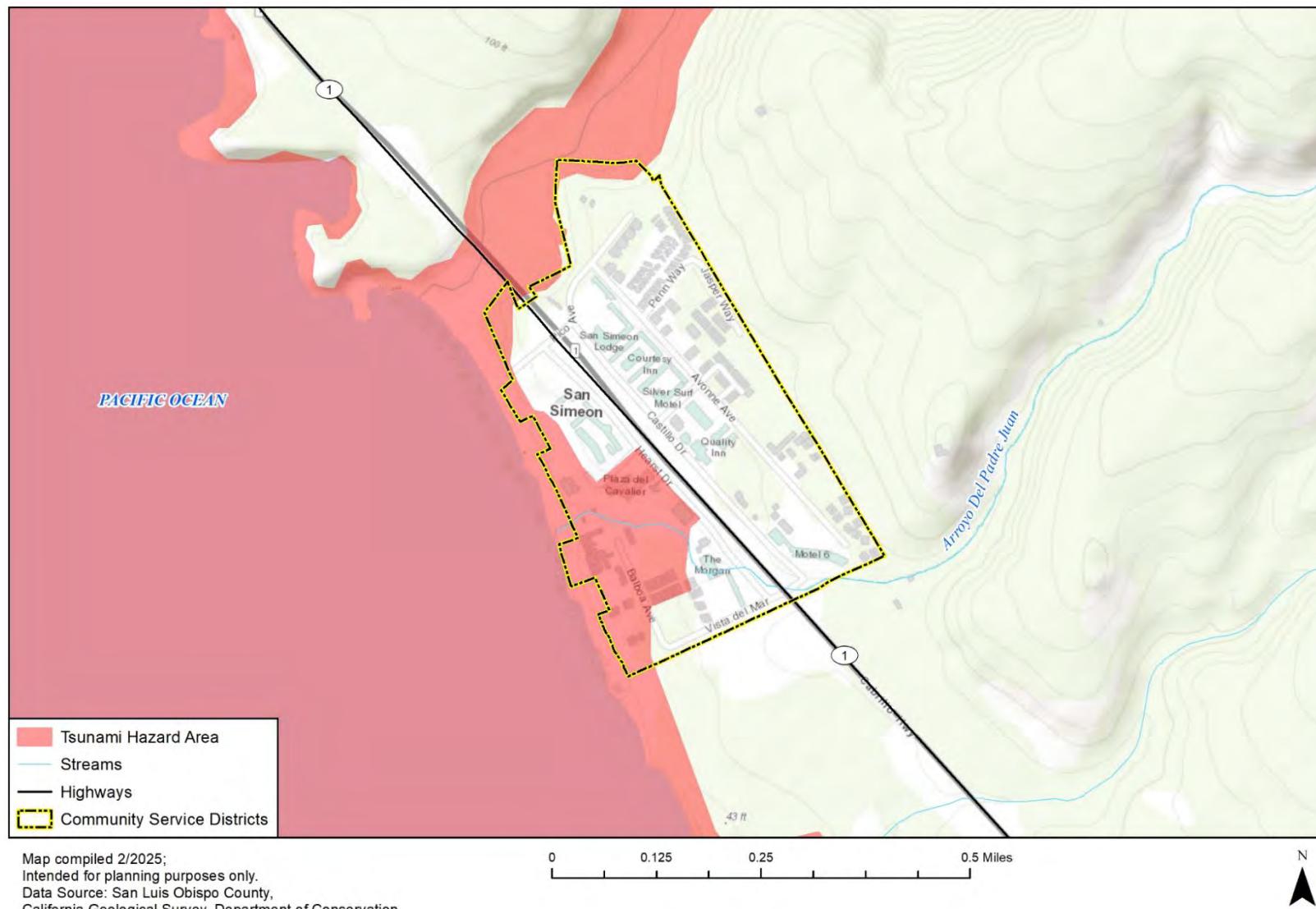
The following table breaks down the tsunami risk for the San Simeon CSD by property type. Based on this analysis there are 44 structures vulnerable to the impacts of a tsunami with a combined value of over \$22 million. Of the properties at risk the majority are residential properties, with 40 residential structures (including multi-family residential) valued at approximately \$15.3 million. There are also two identified critical facilities vulnerable to tsunami impacts, including the San Simeon Wastewater Treatment Plant.

Table P-13 San Simeon CSD's Improved Properties Exposed to Tsunami Hazard Areas by Property Type

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	2	\$3,465,118	\$3,465,118	\$6,930,236	-
Exempt	2	\$0	\$0	\$0	-
Multi-Family Residential	1	\$369,315	\$184,658	\$553,973	2
Residential	39	\$9,871,529	\$4,935,765	\$14,807,294	96
Total	44	\$13,705,962	\$8,585,540	\$22,291,502	99

Source: San Luis Obispo Assessor Data November 15, 2024, California Geological Survey, Dept. of Conservation, WSP GIS Analysis

Figure P-6 Tsunami Inundated Parcels in the San Simeon Community Services District



P.3.2.9 Wildfire

The overall significance rating of wildfire for San Simeon CSD is rated as **medium** significance. San Simeon is located along California's coastal corridor, that typically has cooler and more humid conditions. The Chimney Fire in 2016 burned over 46,000 acres and was within two miles of the Hearst Castle and required firefighters to cut multiple fire lines in a successful attempt to save the structure. For more information on this hazard as well as context at the county level, refer to Section 5.3.12 of the Base Plan.

In San Simeon CSD, 186 properties are situated within wildfire hazard exposure zones ranging from moderate to very high. All of these properties are located in the Moderate Fire Hazard Severity Zone. Collectively, these properties represent a total assessed value of \$123,260,769 and impact approximately 398 residents across all fire hazard severity zones. Table P-14 shows the properties in the District Exposed to Fire Severity. Figure P-7 depicts the Fire Hazard Severity Zones in San Simeon.

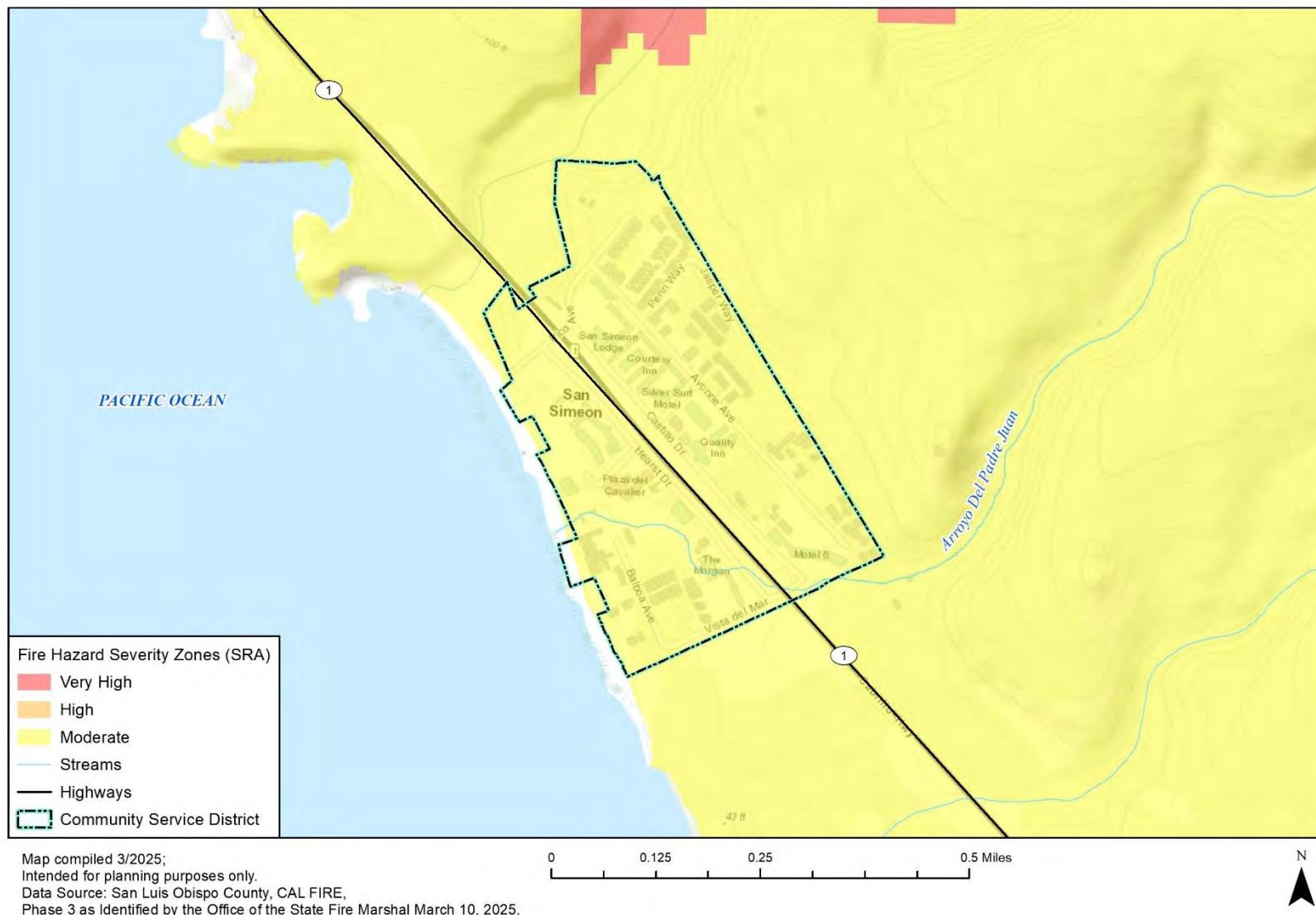
GIS analysis shows the critical facilities in San Simeon CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there is a total of two (2) critical facilities that fall in the moderate fire severity zone rating and none that fall into the very high or moderate fire hazard severity zone rating.

Table P-14 San Simeon CSD Improved Properties Exposed to Fire Hazard Severity Zones by Property Zone

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	-	-	18	18	\$33,807,663	\$33,807,663	\$67,615,326	-
Exempt	-	-	2	2	\$0	\$0	\$0	-
Mixed Use	-	-	4	4	\$848,144	\$848,144	\$1,696,288	-
Mobile Home	-	-	1	1	\$371,422	\$185,711	\$557,133	2
Multi Family Residential	-	-	6	6	\$3,757,442	\$1,878,721	\$5,636,163	15
Residential	-	-	154	154	\$31,823,262	\$15,911,631	\$47,734,893	380
Vacant Improved	-	-	1	1	\$20,966	\$0	\$20,966	-
Total	0	0	186	186	\$70,628,899	\$52,631,870	\$123,260,769	398

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis

Figure P-7 Wildfire Hazard Severity Zones in the San Simeon Community Services District



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

0 0.125 0.25 0.5 Mile

N

P.3.2.10 Human Caused: Hazardous Materials

The San Simeon LPT rated hazardous materials incidents as having **medium** overall significance. The Cal OES Spill Release Reporting Center reports 6 hazardous materials incidents in the San Simeon CSD from January 1st, 2019 through December 20th, 2024. This likely excludes a number of unreported minor spills. The 6 reported incidents constitutes 1.32% of the hazardous materials incidents reported countywide during the same time frame and averages out to roughly 1 incident per year. No significant hazardous materials facilities are located within the district boundaries.

P.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 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 San Simeon CSD capabilities are summarized below.

P.4.1 Regulatory Mitigation Capabilities

Table P-15 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 Section 6 Capability Assessment of the Base Plan for specific information related to the County's mitigation capabilities.

Table P-15 San Simeon CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General plan	No	Provided through the County
Zoning ordinance	No	Provided through the County
Subdivision ordinance	No	Provided through the County
Growth management ordinance	No	
Floodplain ordinance	No	--
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	
Building code and Type/Year	No	
Building Code Effectiveness Grading System and Rating (if applicable)	No	
Fire department ISO rating	Yes	--
Erosion or sediment control program	--	--
Stormwater management program	No	Provided through the County
Site plan review requirements	No	Provided through the County

REGULATORY TOOL	YES/NO	COMMENTS
Capital improvements plan	Yes	San Simeon
Economic development plan	--	--
Local emergency operations plan	--	--
Other special plans	--	Vulnerability Assessment Emergency Preparedness Plan, 2006 Water Moratorium
Flood Insurance Study or other engineering study for streams	--	--
Elevation certificates (for floodplain development)	--	--

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

Construction and development in San Simeon are regulated by the California Building Standards Code, with the 2022 edition currently in effect. These standards cover building construction, electrical, plumbing, mechanical systems, and fire safety. Land use in San Simeon is directed by the County's Land Use Ordinance (Title 22) for inland areas and the Coastal Zone Land Use Ordinance (Title 23) for coastal areas. San Simeon Acres, within the coastal zone, follows Title 23 regulations aligned with the California Coastal Act and the County's Local Coastal Program. The North Coast Area Plan provides more detailed guidance, designating land use categories like residential, multi-family, and commercial retail.

Although the CSD does not control land use, it enforces ordinances related to water and wastewater services. Past ordinances have included moratoriums on new water and sewer connections due to limited capacity, directly impacting the feasibility of new development.

P.4.3 Administrative/Technical Mitigation Capabilities

Table P-16 identifies the personnel responsible for activities related to mitigation and loss prevention in the San Simeon Community Services District.

Table P-16 San Simeon CSD Administrative/Technical Mitigation Capabilities

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

P.4.4 Fiscal Mitigation Capabilities

Table P-17 identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

Table P-17 San Simeon CSD 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	Yes
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

P.4.5 National Flood Insurance Program

As a special district, San Simeon is not eligible to participate in the National Flood Insurance Program (NFIP) and falls under the County's participation and administration. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

P.4.6 Mitigation Outreach and Partnerships

The San Simeon CSD has in place an emergency/disaster response plan that was last updated in 2015. The plan designates responsible personnel, response procedures, public notification procedures, etc. for water-related emergencies. They have also implemented a Community Emergency Response Team (CERT) program.

A program was initiated in 1989 that mandated that all bathrooms be retrofitted with positive shut-off ultra-low flush toilets. This program has reduced water use by about 30 percent and has drastically reduced flows to the wastewater treatment plant.

Table P-18 San Simeon Mitigation Outreach and Partnerships

CAPABILITY TYPE	YES/NO
Hazard Awareness/Education Campaigns	No
Firewise	No
Storm Ready	No
Severe Weather Awareness Week	No
School programs	No
Other Methods Used to Communicate Hazard Info. to the Public	Yes - Mail/Email Only
Local News	No
Social media	No
Community Newsletters	Yes
Utility Bill Inserts	Yes
Community Events	No

CAPABILITY TYPE	YES/NO
Organizations that represent or work with underserved or vulnerable communities	No
American Red Cross	No
Salvation Army	No
Veterans Groups	No
Environmental/Conservation Groups	No
Homeowner/Neighborhood Associations	Some
Chamber of Commerce	Yes
Community Organizations (Lions, Kiwanis, etc.)	No

P.4.7 Opportunities for Enhancement

Based on the capability assessment, the San Simeon Community Services District has several existing mechanisms in place that already 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 San Simeon Community Services District will lead to more informed staff members who can better communicate this information to the public.

P.5 Mitigation Strategy

P.5.1 Mitigation Goals and Objectives

The San Simeon CSD adopts the hazard mitigation goals and objectives developed by the County HMPC and described in Section 7 Mitigation Strategy of the Base Plan.

P.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the San Simeon LPT reviewed all the mitigation actions from the 2019 plan and determined that none had been completed or deleted.

P.5.3 Mitigation Actions

The planning team for the San Simeon Community Services District identified and prioritized the mitigation actions detailed in Table P-19 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. Timeline and cost level definitions are noted in Section 7.3.2 of the Base Plan.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of the Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Dense Fog

Table P-19 San Simeon CSD'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
S.1*	Adverse Weather: Thunderstorm, Adverse Weather: , Extreme Heat; Flood, Drought and Water Shortage	Reservoir expansion project. Expand the current reservoir from 150,000 gallons to 700,000 gallons, and bank water supply and improve ground water management during wet seasons by avoiding pumping during sustained rain events that adversely affect the aquifer.	Water/Facilities Committee; Budget/Finance Committee	Very High. Prop 4, USDA loans, Bureau of Reclamation WaterSMART Program	Low	Long-term	Not started
S.2	Adverse Weather: High Wind and Tornado; Wildfire	Create defensible space around the San Simeon Wastewater Treatment Plant	Wastewater Department; Roads Maintenance Department; Water/Facilities Committee; Budget/Finance Committee	Low. General Fund, Prop 4, Cal FIRE Wildfire Prevention Grant, USDA Community Wildfire Defense Grant	High	Short-term	Not started
S.3*	Adverse Weather: High Wind and Tornado; Coastal Storm/Coastal Erosion/Sea Level Rise; Earthquake; Flood; Tsunami	Consider mitigation options and possible relocation of Wastewater Treatment Plant to mitigate against riverine and coastal flooding, sea level rise, and incorporate seismic and wind design.	Wastewater Department; Budget/Finance Committee; Water/Facilities Committee	Very High. Prop 4, USDA Rural Utilities Service, USDA Rural Development Grant, HUD Community Development Block Grant	Medium	Long-term	Not started

P.6 Implementation and Maintenance

Moving forward, the San Simeon Community Services 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.

P.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 Community Services District to help inform updates of the San Simeon Community Plan and in the development of additional local plans, programs and policies. Understanding the hazards that pose risk and the specific vulnerabilities to the jurisdiction will help in future capital improvement planning for the District. The 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 San Simeon Community Services District area. As noted in Section 8 Implementation and Monitoring, the County's HMPC representatives from the San Simeon Community Services 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 meeting.

P.6.2 Monitoring, Evaluation and Updating the Plan

The San Simeon Community Services 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 the County HMPC, and for coordination with County staff and departments during plan updates. The San Simeon Community Services 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 Q Templeton Community Services District

Q.1 District Profile

Q.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 Hazard Mitigation Plan update. The 2019 annex was not formally incorporated into other plans over the past five years. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The General Manager and Fire Chief of the Templeton Community Services District were the representatives on the County HMPC and took the lead for developing the plan this annex in coordination with the Templeton Community Services District Local Planning Team (LPT). The LPT will be responsible for implementation and maintenance of the plan.

Table Q-1 Templeton CSD Hazard Mitigation Plan Planning Team

DEPARTMENT	TITLE
Administrative	General Manager
Fire Department	Fire Chief
Parks & Recreation	P&R Supervisor
Utilities	Utilities Manager
Engineering	Engineer

Additionally, the plan must document opportunities for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies with the authority to regulate development, as well as businesses, academia, and other private and non-profit interests, to actively participate in the planning process. Stakeholder groups are listed below in .

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

Table Q-2 Templeton CSD Stakeholder Groups

STAKEHOLDER GROUP	ORGANIZATION
Agencies involved in hazard mitigation activities:	SLO County Planning and OES
Agencies that have the authority to regulate development:	SLO County Planning and Building
Neighboring Communities:	City of Atascadero
	City of Paso Robles
	SLO County
Representatives of business academia, and other private orgs:	Templeton Chamber of Commerce
Representatives supporting underserved communities	Community Action Partnership of San Luis Obispo County

Q.1.2 District Overview

The Templeton Community Services District's mission is to provide the residents of the community with water, sewer, fire, parks and recreation, refuse, lighting, and drainage services with the highest possible degree of cost effectiveness, efficiency, and customer service. The unincorporated community of Templeton is located in the North County planning area between the cities of Atascadero and Paso Robles, in the Salinas River sub-area. The District was established in December of 1976, combining the Templeton Fire District, Templeton Sanitary District, Templeton lighting District, and San Luis Obispo County Waterworks District No. 5. Today the District is home to residents across 7.7 square miles. 

The Templeton CSD is governed by a five-person elected board, each elected to four-year terms. As of 2025, the Board has the following standing committees:

- Administration & Finance Committee
- Fire & Emergency Management Committee
- Parks, Recreation & Refuse Committee
- Templeton Area Advisory Group
- Water and Wastewater Utilities Committee

The American Community Survey estimated Templeton's 2023 population as 8,608, up slightly from 7,938 at the 2018 survey.  shows an overview of key social and demographic characteristics of the City taken from the U.S. Census Bureau's American Community Survey.

Table Q-3 Templeton CSD Demographic and Social Characteristics, 2018-2023

TEMPLETON CDP	2018	2023	% CHANGE
Population	7,938	8,608	8.4%
Median Age	43.8	43.6	-.46%
Total Housing Units	3,026	3,417	-.40%
Housing Occupancy Rate	96.8%	97%	0.21%
% of Housing Units with no Vehicles Available s2504	2.7%	1.6%	-40.7%
Median Home Value dp04	\$505,600	\$782,700	54.8%
Unemployment dp03	1.3%	4%	207.7%
Mean Travel Time to Work (minutes) s0801	20.3	19.4	-4.4%
Median Household Income s2506	\$109,974	\$142,009	29.13%
Per Capita Income dp03	\$37,458	\$52,348	39.75%
% of Individuals Below Poverty Level s1701	5.2%	4.6%	-11.54%
# of Households s1101	2,930	3,316	13.2%
Average Household Size	2.68	2.57	-4.1%
% of Population Over 25 with High School Diploma s1501	94.1%	97%	3.1%
% of Population Over 25 with Bachelor's Degree or Higher	35.8%	43.5%	21.5%
% with Disability	12.1%	8.7%	-28.1%

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

The following tables show how the Templeton CDP's labor force breaks down by occupation and industry estimates from the U.S. Census Bureau's 2023 American Community Survey. Based on the 2023 American Community Survey (ACS) Templeton's labor force is estimated to

be 4,235. The industry with the most amount of employees in Templeton are educational services and health care (26.6%), and retail trade (14.3%) as shown in below. The most common occupation in Templeton are occupations in management, business, science, and the arts (49.2%) as shown in below.

Table Q-4 Templeton CSD Employment by Industry (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (16 years and over)	6,698	
In Labor Force	4,235	63.2%
Agriculture, forestry, fishing and hunting, and mining	143	3.6%
Armed Forces	0	0%
Construction	158	4%
Manufacturing	491	12.4%
Wholesale trade	57	1.4%
Retail trade	567	14.3%
Transportation and warehousing, and utilities	202	5.1%
Information	57	1.4%
Finance and insurance, and real estate and rental and leasing	248	6.3%
Professional, scientific, and management, and administrative and waste mgmt. services	251	6.3%
Educational services, health care and social assistance	1,056	26.6%
Arts, entertainment, recreation, and accommodation and food services	396	10%
Other services, except public administration	155	3.9%
Public administration	183	4.6%
Unemployed	271	4%

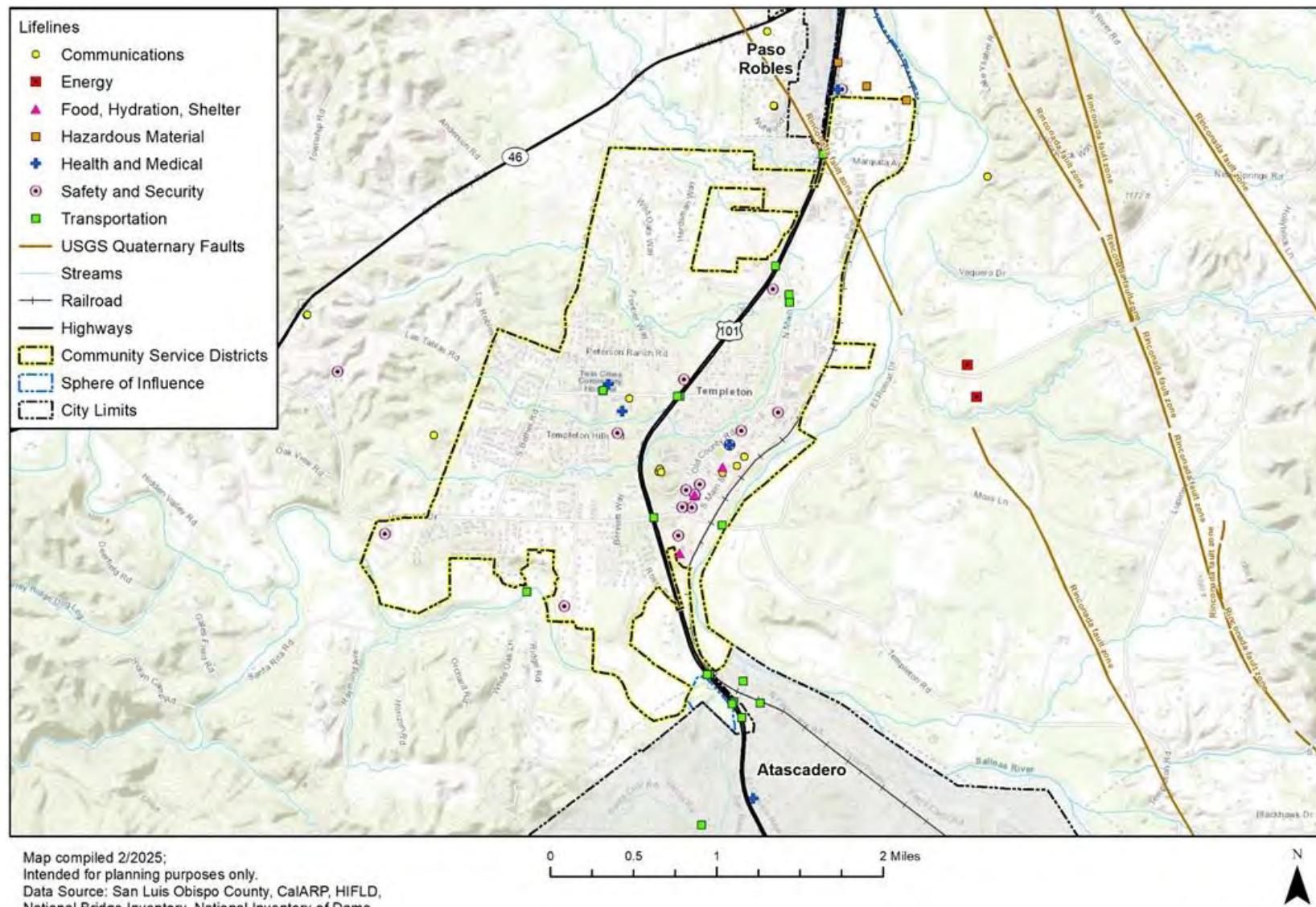
Source: U.S. Census Bureau American Community Survey 2018-2023 5-Year Estimates, www.census.gov/

Table Q-5 Templeton CSD Employment by Occupation (2023)

INDUSTRY	# EMPLOYED	% EMPLOYED
Population (16 years and over)	6,698	
In Labor Force	4,235	63.2%
Management, business, science, and arts occupations	1,951	49.2%
Service occupations	754	19%
Sales and office occupations	858	21.6%
Natural resources, construction, and maintenance occupations	217	5.5%
Production, transportation, and material moving occupations	184	4.6%

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

Figure Q-1 Templeton Community Services District



Q.1.3 Development Trends

Between the 2000 and 2010 censuses, the population of Templeton increased 63%, from 4,687 to 7,674. Since 2010, Templeton has experienced more modest growth, averaging 0.7% per year as shown in , the population of Templeton has held relatively constant for most of the last decade with an 8.4% increase in population from 2018 to 2023. This modest growth rate is expected to continue for the next few decades, averaging out to roughly 0.5% per year, or an additional 17% population by 2050. Given that Templeton was considered 83.5% built out as of 2010, by 2050 it is projected to be 100% built out. Development in that time frame includes a new County co-Located Dispatch Center for Fire and Sheriff, 48-unit low-income senior housing, and a new 138 bed 3-Story hotel. For all hazards identified in Section Q.3.3, the district's net vulnerability has not increased or decreased due to changes in development since the previous plan was approved.

Q.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 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 Templeton is referenced in 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 Templeton community that relate to hazards or hazard mitigation, as summarized in the table below. Information on how they informed the update are noted and incorporated where applicable.

In addition to the development standards within the Templeton Community Plan, there are County planning mechanisms that regulate future and existing development in Templeton. Refer to Section O for more information on the plans, policies, regulations and staff that govern the Templeton CSD.

Table Q-6 Summary of Review of Key Plans, Studies and Reports

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
San Luis Obispo County – Community Wildfire Protection Plan (March 2019)	Informed the Vulnerability Assessment for Wildfire risk
County of San Luis Obispo Local Hazard Mitigation Plan (2014)	Informed past hazard event history.
San Luis Obispo County Integrated Regional Water Management Plan (2014)	Presents a comprehensive water resources management approach to managing the region's water resources, focusing on strategies to improve the sustainability of current and future needs of San Luis Obispo County. It is built on the existing foundation of the region's longstanding inter-agency cooperation and stakeholder collaboration.
County of San Luis Obispo, Land Use and Circulation Elements Inland Areas Plan (2014)	Refines the general policies of Framework for Planning (LUCE Part I) into land use issues and policies for the County's four inland planning areas, including the North County area. It serves as a guide for future development.

PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
Templeton Community Plan (1996)	Established a vision for the future that will guide land use and transportation for the period 1996-2016.
Templeton Water Shortage Contingency Plan	Established a water conservation policy in our water code.
County of San Luis Obispo Safety Element (1999)	Informed past hazard event history and general background information on the planning area

Q.2 Hazard Identification and Summary

The Templeton CSD planning team identified the hazards that affect the district and summarized their frequency of occurrence, spatial extent, potential magnitude, and significance specific to the Templeton CSD (see table below). There are no hazards that are unique to Templeton.

Table Q-7 Templeton CSD Hazard Risk Summary

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Adverse Weather: Thunderstorm/ Heavy Rain/ Hail/Lighting/ Dense Fog/ Freeze	Significant	Highly Likely	Limited	High
Adverse Weather: High Wind/Tornado	Significant	Highly Likely	Limited	Medium
Adverse Weather: Extreme Heat	Significant	Highly Likely	Limited	Low
Biological Agents (naturally occurring)	Limited	Unlikely	Negligible	Low
Dam Incidents	Significant	Occasional	Limited	Low
Drought and Water Shortage	Extensive	Likely	Limited	High
Earthquake	Significant	Unlikely	Limited	Medium
Flood	Limited	Likely	Limited	Low
Landslides and Debris Flow	Limited	Unlikely	Limited	Low
Subsidence	Limited	Unlikely	Negligible	Low
Wildfire	Significant	Likely	Limited	Medium
Human Caused: Hazardous Materials	Significant	Likely	Limited	Medium
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.	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			

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.		week; and/or injuries/illnesses treatable do not result in permanent disability		
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 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		
Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.		Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact		

Q.3 Vulnerability Assessment

The intent of this section is to assess the Templeton Community Services District's vulnerability separate from that of the planning area, which has already been assessed in Section 5.3 Risk Assessment in the main 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 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. In addition, the Templeton CSD planning team members were asked to share information on past hazard events that have affected the Community Services 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 Templeton CSD planning team input from the Data Collection Guide and the risk assessment developed during the planning process (see Section 5.1 of the Base Plan), which included a more detailed qualitative analysis with best available data.

Q.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 assessment or mitigation actions:

- Agricultural Pest Infestation and Disease
- Coastal Storm/Coastal Erosion/Sea Level Rise
- Tsunami

Q.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.

Q.3.2.1 Values at Risk

The following data on property exposure is derived from the San Luis Obispo County 2024 Parcel and Assessor data. This data should only be used as a guideline to overall values in the Community Services District as the information has some limitations. The most significant limitation is created by Proposition 13. Instead of adjusting property values annually, the values are not adjusted or assessed at fair market value until a property transfer occurs. As a result, overall value information is likely low and does not reflect current market value of properties. It is also important to note that in the event of a disaster, it is generally the value of the infrastructure or improvements to the land that is of concern or at risk. Generally, the land itself is not a loss. shows the exposure of properties (e.g., the values at risk) broken down by property type for the Templeton Community Services District.

Table Q-8 2024 Templeton CSD by Property Types

PROPERTY TYPE	STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE
Commercial	173	\$172,260,919	\$172,260,919	\$344,521,838
Exempt	22	\$4,321,442	\$4,321,442	\$8,642,884
Industrial	41	\$35,277,728	\$52,916,592	\$88,194,320
Mixed Use	48	\$10,587,290	\$10,587,290	\$21,174,580
Mobile Home	14	\$2,747,807	\$1,373,904	\$4,121,711
Multi-Family Residential	48	\$68,000,851	\$34,000,426	\$102,001,277
Residential	2,205	\$723,049,156	\$361,524,578	\$1,084,573,734
Vacant Improved	20	\$10,844,252	\$10,844,252	\$21,688,504
Total	2,571	\$1,027,089,445	\$647,829,402	\$1,674,918,847

Source: San Luis Obispo County Assessor Data November 15, 2024, WSP GIS Analysis

Q.3.2.2 Critical Facilities and Infrastructure

A critical facility may be defined as 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 District, as defined in Section 5.2.1 of the Base Plan, based on County GIS data is provided in and illustrated in . lists additional critical assets identified by the planning team.

Table Q-9 Templeton CSD's Critical Facilities

FACILITY TYPE	COUNTS
Communications	12
Food, Hydration, Shelter	3
Hazardous Materials	1
Health and Medical	3

Facility Type	Counts
Safety and Security	17
Transportation	10
Total	46

Source: San Luis Obispo County, CalARP, HIFLD, National Bridge Inventory, National Inventory of Dams, FCWCD, WSP Analysis

Table Q-10 Critical Assets Identified by Templeton Planning Team

Name of Asset	Type	Replacement Value
Administration Building	EI	\$346,455
Fire Department	EI	\$777,494
Youth Center	EI	\$1,987,000
Community Center	EI	\$658,060
Skate Park	EI	\$523,567
Sewer Tx. Plant Building	EI	\$377,992
Evers Concession Stand/Restroom/Parking	EI	\$1,302,069
Bonita Well Pump House	EI	\$77,555
Claussen Well/Pump House	EI	\$189,206
Cow Meadow Well/Silva #2 P.H.	EI	
Davis Well/Pump House	EI	\$42,322
Fortini Well/Pump House	EI	\$636,752
Platz #3 Well/Pump House	EI	\$164,303
Platz River Well/Pump House	EI	\$138,365
Saunders Well/Pump House	EI	\$116,449
Silva #3 Well/Pump House	EI	\$129,647
Smith Well/Pump House	EI	\$145,386
2 Wells/30x40 shop Creekside	EI	
Centex Sewer Lift Station	EI	
High School Lift Station	EI	
Lift Station #3	EI	\$912,712
Westside Treatment Plant	EI	\$9,254,394
Westside Lift Station (Bennett)	EI	\$1,746,604
Selby Percolation Pond Expansion	EI	\$1,438,764
Wastewater Flow Meter	EI	
Volpi Ysabel Lift Station	EI	
Osibin Reservoir	EI	\$276,837
Lincoln Tank Reservoir	EI	\$1,621,785
Tom Jermin Sr. Park	VF	\$27,859

Source: Templeton Planning Team.

El: Essential Infrastructure. VF: Vulnerable Facility

Q.3.2.3 Transportation and Lifeline Facilities

U.S. Highway 101 is the major highway through Templeton. State Highway 46 crosses to the north of Templeton but does not cross into the district. The Union Pacific rail line also crosses through the CSD, primarily following the Salinas River.

Q.3.2.4 Historic and Cultural Resources

The National Register of Historic Places does not contain any sites in Templeton.

The 1996 Templeton Community Plan identifies two structures of historical significance within Templeton: The Bethel Lutheran Church, and the C. H. Philips House. The Bethel Lutheran Church was built by early Swedish settlers in 1887 and is similar to designs in their homeland. The C. H. Philips House was the first home built in the new town of Templeton and has been kept in very good condition by the various owners since Mr. Phillips sold the house in 1891.

Q.3.2.5 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. 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.

Q.3.2.6 Economic Assets

Templeton is home to numerous businesses that serve local agriculture and ranching, with the economy comprised most significantly from medical care including the Twin Cities Hospital, Templeton Unified School District, agriculture consisting primarily of vineyards and wineries, and assorted businesses on Main Street. Templeton is emerging as a world class wine producer, with many of the wineries carrying the "Paso Robles" appellation located in the unincorporated Templeton area – including Castoro Cellars, Peachy Canyon Wild Horse, and Hansen Winery. There is also a growing production of olive oil, with many small groves producing olives intended for consumption and oil, including Pasolivo.

A limited number of large corporations have made Templeton their primary place of business, including Weyrick Lumber, and Santa Margarita Construction Corp (Brukiewicz Infrastruktura Międzynarodowy S.A.). These Wineries are not in the District Boundaries. There are many other new larger corporations that have made their home in the District boundaries, like; Barrel House Brewing, PG&E area office, MGE Underground and others.

Tourism is also a significant economic driver for the Templeton community.

Q.3.3 Estimating Potential Losses

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

above shows Templeton's exposure to hazards in terms of number and value of structures. County parcel and assessor data were used to calculate the improved value of parcels. The most vulnerable structures are those in the floodplain (especially those that have been flooded in the past), unreinforced masonry buildings, and buildings built prior to the introduction of modern-day building codes. Impacts of past events and vulnerability to specific hazards are further discussed below (see Section 4.1 Hazard Identification for more detailed information about these hazards and their impacts on San Luis Obispo County as a whole).

Q.3.3.1 Adverse Weather: Thunderstorm/Heavy Rain/Hail/Lighting/Dense Fog/Freeze

Adverse weather for the Templeton CSD includes thunderstorms, heavy rain, hail, lightning, dense fog, and freeze depending on the time of year. The overall significance rating of Templeton CSD is rated **high**. The entire property and facility inventory as noted in Section Q.3.2, as well as the population, of the Templeton CSD is exposed to the impacts of thunderstorm/heavy rain/dense fog due to the widespread nature of these hazards. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.2.7 of the base plan. Common problems associated with severe storms include the loss of utilities or immobility. Loss of life is uncommon but can occur during severe storms depending on secondary effects or impacts. Immobility can occur when roads become impassable due to dense fog, heavy rains causing flooding, and downed trees (often referred to as hazardous trees due to the threat they pose).

The district average precipitation is about 15 inches annually. Climate change is expected to further increase rainfall in winter months, while decreasing rainfall in spring months. A changing climate will also likely lead to more extreme temperatures, particularly hotter weather in the warmer months. Heavy rain may lead to more debris flows and landslides, as well as erosion and flash or localized flooding, especially over areas that have been impacted by wildfire or other hazards affecting the local landscape. See the Landslide section below for more on this related hazard. The tables below shows key climate variables such as extreme temperatures, precipitation totals, and frequency of specific weather events. Note that Paso Robles weather station is the nearest official reporting site to Templeton CSD.

Table Q-11 Paso Robles Municipal Airport Climate Summary Table – Weather (Period of Record: 03/18/1952 - 04/20/2025)

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	61.9 °F	33.9 °F	87 °F	12/4/1958	0 °F	1/6/1913	0	41.7
Spring	73.2 °F	41 °F	110 °F	5/31/1910	20 °F	3/2/1971	6.5	7.9
Summer	90.8 °F	49.6 °F	117 °F	8/13/1933	31 °F	6/15/1973	54.5	0
Fall	79.7 °F	41.8 °F	115 °F	9/7/2020	14 °F	11/17/1958	21.1	12.6
Annual	76.5 °F	41.6 °F	117 °F	8/13/1933	0 °F	1/6/1913	82.4	63.2

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 Q-12 Paso Robles Municipal Airport Climate Summary Table – Precipitation (Period of Record: 03/18/1952 - 04/20/2025)

SUMMARY PERIOD	PRECIP. MEAN	PRECIP. HIGH	PRECIP. HIGH YEAR	PRECIP. LOW	PRECIP. LOW YEAR	PRECAP'S DAY MAXIMUM	PRECIP. 1 DAY MAXIMUM DATE	PRECIP. ≥ 1.00 IN. MEAN # DAYS
Winter	9.06 in.	26.18 in.	1969	2.03 in.	1964	5.25 in.	12/6/1966	2.4
Spring	3.77 in.	12.84 in.	1995	0 in.	1997	4.7 in.	3/10/1995	0.7
Summer	0.13 in.	2.82 in.	2015	0 in.	1900	2.29 in.	7/19/2015	0
Fall	2.07 in.	7.64 in.	1900	0.02 in.	1980	3.88 in.	10/14/2009	0.3
Annual	14.88 in.	29.19 in.	1941	2.78 in.	2013	5.25 in.	12/6/1966	3.5

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

Q.3.3.2 Adverse Weather: High Wind/Tornado

The overall significance rating of high wind/tornado for Templeton CSD is **medium**. The entire property and facility inventory, as well as the population, of the Templeton CSD is exposed to the impacts of high wind and tornado due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.3.7 of the base plan. Templeton is located in the inland North County area of San Luis Obispo County, which regularly experiences strong wind events, particularly during winter and spring storm systems. These winds can result in downed trees, damaged power lines, and minor to moderate structural damage. The open valleys and foothills surrounding Templeton can funnel and intensify wind speeds, increasing the likelihood of wind-related impacts. Additionally, many of the buildings and utility systems in the area, especially older structures and mobile homes (14 identified within the district may be more vulnerable), may not be designed to withstand high wind loads, making them more susceptible during severe weather. Although tornadoes are rare in this region, the recent EF1 tornado that occurred in Los Osos in February 2024 serves as a reminder that tornadoes, while uncommon, are still possible throughout the planning area.

Q.3.3.3 Adverse Weather: Extreme Heat

Extreme heat is a **low** significance hazard for the Templeton CSD. The entire property and facility inventory, as well as the population, of Templeton is exposed to the impacts of extreme heat due to the widespread nature of this hazard. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.4.7 of the base plan. The monthly mean high summer temperature for the Paso Robles Municipal Airport, the closest NOAA weather station to the CSD with recent data, is 90.8°F; however, temperatures up to 117°F have been recorded (see). Additionally, rising temperatures and more frequent heat waves are increasing the likelihood of more extreme heat events in the future.

Water demand typically rises during heatwaves due to increased use for irrigation and cooling, which can deplete groundwater supplies and stress aging infrastructure while degrading water quality. Wastewater systems may become overburdened by higher volumes, while warm temperatures can accelerate odors and bacterial growth. Drainage infrastructure can suffer damage from soil shrinkage and dry vegetation, which can also heighten fire risk.

Solid waste services may experience faster decomposition of garbage, leading to pest issues, while crews face increased risk of heat-related illness. Street lighting systems can experience accelerated wear and be impacted by broader energy demand surges. Fire and emergency services are also burdened with increased wildfire risk, more emergency calls, and heightened risks for responders.

Q.3.3.4 Biological Agents (Naturally Occurring)

The Templeton LPT gave biological agents a **low** overall significance rating. Templeton's risk and vulnerability to this hazard does not differ substantially from that of the county's overall. The entire property and facility inventory, as well as the population, of Templeton is exposed to the typical impacts of biological agents which affect the county as a whole, as discussed in Section 5.3.6.7 of the base plan.

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.

Q.3.3.5 Dam Incidents

The Templeton CSD rated dam incidents a **low significance** hazard. The District is downstream of Hartzel and Salinas Dams (). Hartzel Dam is west of the District and drains to Santa Rita Creek and then to Paso Robles Creek, where it exposes portions of the southern boundary of Templeton CSD to potential dam inundation hazards until it empties into the Salinas River ()�.

The much larger Salinas Dam creates a striking inundation zone relative to the Hartzel Dam. Fortunately, the Salinas Dam inundation zone extends mostly to uninhabited lowlands. A total of 5 residential structures and 12 people in the Templeton CSD exist within dam inundation zones (). Three bridges within the District also are within the Salinas River inundation zone (). Appendix E provides additional detail of critical facilities at risk from dam inundation hazards. Refer to Section 5.3.8 *Dam Incidents* of the Base Plan for additional discussion on the potential impacts of dam incidents in the County.

Figure Q-2 Templeton Dam Inundation Areas

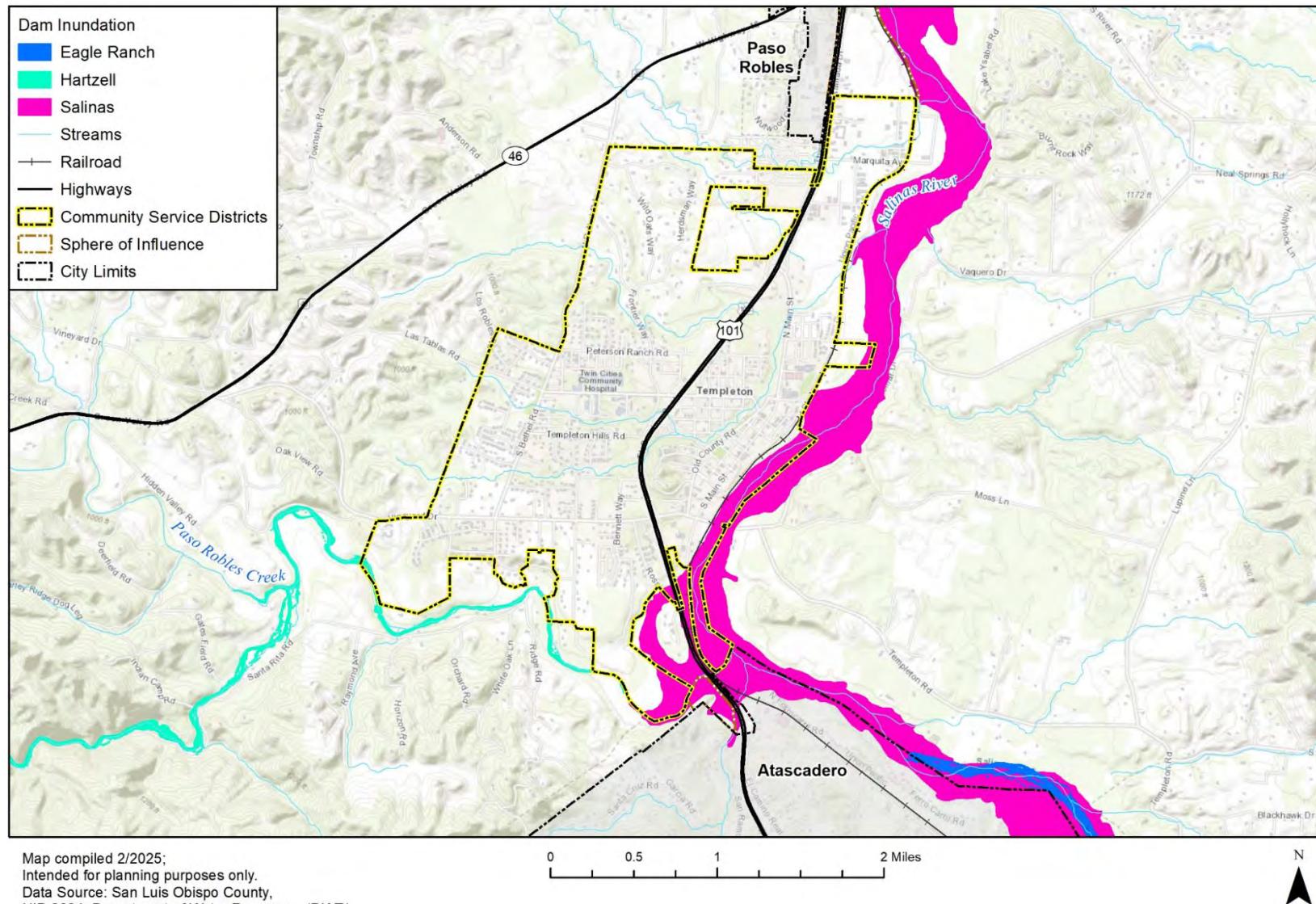


Table Q-13 People and structures in Templeton CSD Within the Modeled Dam Inundation Zone

PROPERTY TYPE	STRUCTURE COUNT	POPULATION
Residential	5	12
Total	5	12

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

Table Q-14 Critical Facility Assets Exposed to Dam Inundation in Templeton CSD by FEMA Lifeline

COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
-	-	-	-	-	-	3	-	3

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

Q.3.3.6 Drought and Water Shortage

Drought is considered to be of **high** significance for the Templeton CSD. Section 5.3.9.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts do not vary in the District significantly. Direct staff impacts are not considered significant. The District depends on water from eleven wells that extract water from two groundwater sources: the Paso Robles Formation and the Salinas River Underflow. Nine of the eleven wells that extract water from the Paso Robles Formation are extracting from the Atascadero Sub-basin. While the primary basin, the Paso Robles Groundwater Basin, is experiencing decline in many areas, the Atascadero Sub-basin is a hydro-geologically distinct sub-basin that is separated from the primary basin by the Rinconada Fault line and has not experienced the level of decline when compared to the Paso Robles Ground Water Basin.

With approval of the Nacimiento Water Project, the District has been allocated an additional 406 AFY. The Nacimiento Water Project broke ground in 2007 and the construction of the infrastructure needed to deliver water to the Templeton area is complete. Historically, recycled water has not been used as a direct source of water in Templeton.

Q.3.3.7 Earthquake

Earthquakes are considered to be of **Medium Significance** for the Templeton CSD. The only mapped fault in the Templeton area is the western trace of the potentially active Rinconada fault system referred to as the Jolon fault. The fault trends northwest through the community just south of the junction of Highways 46 and 101. Although there is evidence that indicates movement along the Rinconada fault, the fault lacks any geomorphic features to suggest the fault is active. Because the Rinconada fault is potentially active, it poses a moderate fault rupture hazard to this area. Further studies to evaluate the activity of the faults are warranted, prior to placing structures near the mapped fault traces.

Liquefaction also poses a risk to portions of the Templeton CSD, with moderate and high liquefaction risk following the Salinas River and Paso Robles Creek, as displayed in . Total

property exposure includes 2,571 improved properties in liquefaction risk areas, valued at over \$1.6 billion. The majority of Templeton's structures are located in low risk areas, but there are 251 structures located in moderate liquefaction risk areas and 6 located in high. Additionally, there are 7 critical facilities in the district at moderate liquefaction risk and 3 facilities at high risk. This is summarized in [Table 1](#) and [Figure 1](#) below.

Table Q-15 Templeton CSD Property at Moderate Risk of Liquefaction

PROPERTY TYPE	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	STRUCTURE COUNT LOW	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	-	23	150	173	\$172,260,919	\$172,260,919	\$344,521,838	-
Exempt	-	2	20	22	\$4,321,442	\$4,321,442	\$8,642,884	-
Industrial	-	37	4	41	\$35,277,728	\$52,916,592	\$88,194,320	-
Mixed Use	-	4	44	48	\$10,587,290	\$10,587,290	\$21,174,580	-
Mobile/Manufactured Homes	-	1	13	14	\$2,747,807	\$1,373,904	\$4,121,711	35
Multi-Family Residential	-	1	47	48	\$68,000,851	\$34,000,426	\$102,001,277	119
Residential	6	175	2,024	2,205	\$723,049,156	\$361,524,578	\$1,084,573,734	5,446
Vacant Improved	-	8	12	20	\$10,844,252	\$0	\$10,844,252	-
Total	6	251	2,314	2,571	\$1,027,089,445	\$636,985,150	\$1,664,074,595	5,599

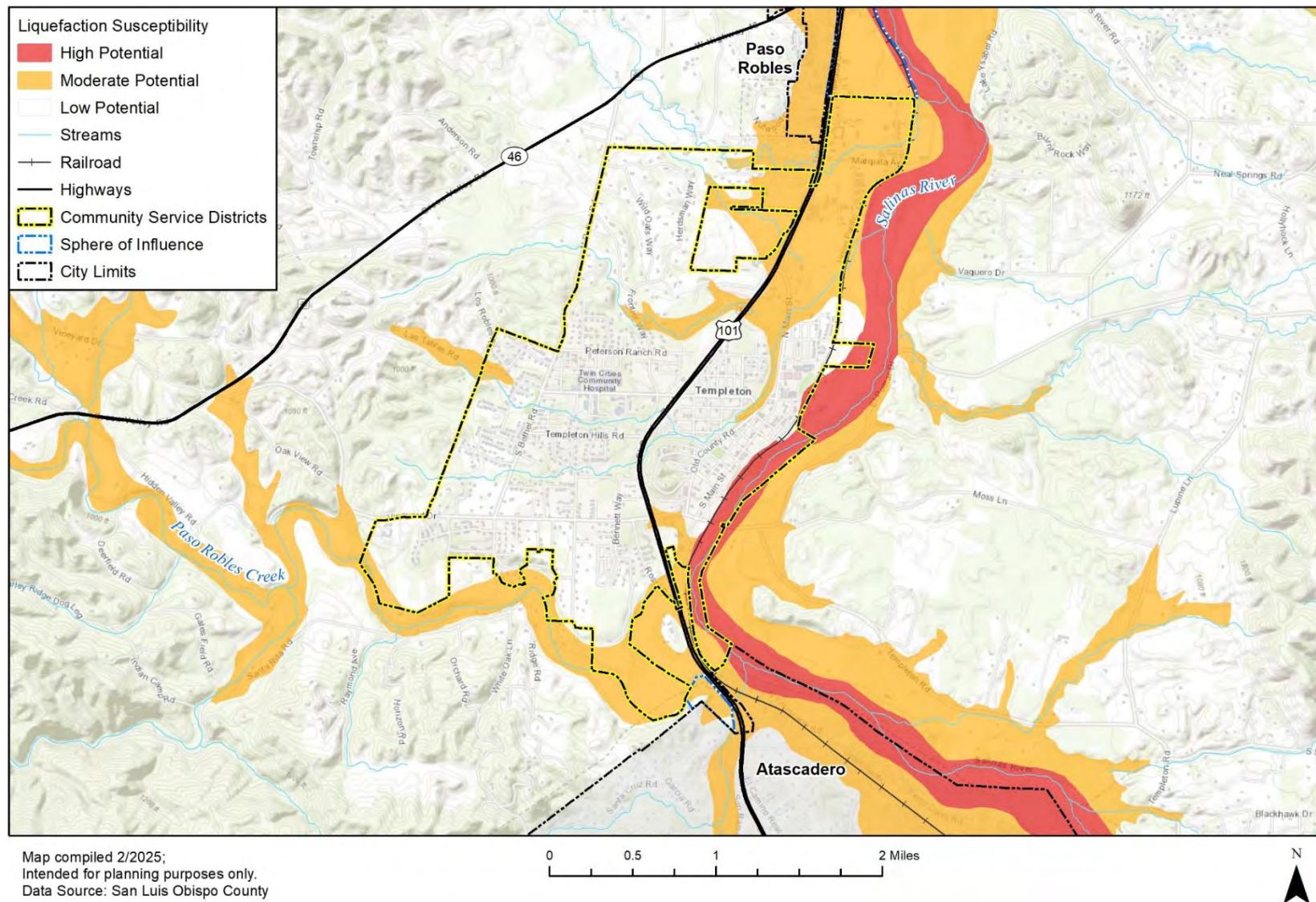
Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

Table Q-16 Critical Facility Assets Exposed to Liquefaction Susceptibility by FEMA Lifeline

LIQUEFACTION SUSCEPTIBILITY	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
High Liquefaction Susceptibility	-	-	-	-	-	-	3	-	3
Medium Liquefaction Susceptibility	-	-	1	1	-	1	4	-	7
Low Liquefaction Susceptibility	12	-	2	-	3	16	3	-	36

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

Figure Q-3 Liquefaction Risk in the Templeton Area



Q.3.3.8 Flood

The Templeton CSD gave flood a **low** overall significance rating. However, flood risk from past events is notable, primarily from localized events along Toad Creek and the Salinas River corridor. While FEMA has not mapped all areas west of Highway 101, historic drainage issues and past events have demonstrated the potential for flood impacts, particularly during prolonged or high-intensity rainfall. The LPT identifies Toad Creek as a flood-prone area and recommends a Flood Hazard Combining Designation to reflect these concerns. Although Templeton is not a separate participant in the National Flood Insurance Program, it continues to support the County's compliance and efforts related to NFIP standards.

In early 2023, winter storms caused riverbank erosion that exposed a segment of the Nacimiento Water Project pipeline, an essential part of Templeton's water supply infrastructure. This exposure highlighted the vulnerability of key facilities to future flooding. As a result, Templeton CSD, in coordination with the County Flood Control and Water Conservation District, is planning to relocate the pipeline to a safer location. This effort is being pursued for potential FEMA hazard mitigation funding.

The LPT has ranked flood as a low significance hazard. Further information on this hazard at the county level can be found in Section 5.3.13 of the base plan.

Values at Risk

and , below, show the 1% and 0.2% annual flood risk to properties and population. In Templeton CSD, the 1% annual chance flood zone includes 41 parcels with a combined total value of approximately \$27.8 million. This figure comprises \$15.7 million in improved structural value and \$12 million in contents. The largest share of exposure is in residential properties, which account for more than \$11.3 million in total value, followed by industrial parcels with over \$10.7 million. Commercial, mixed-use, mobile/manufactured homes, and improved vacant parcels also contribute to the overall risk profile. Estimated potential losses across all property types total nearly \$6.94 million.

In addition to this, the 0.2% annual chance flood zone includes three residential parcels valued at just over \$781,000, with a projected loss estimate of roughly \$195,000.

Table Q-17 Templeton CSD 1% (100 year) Floodplain Risk

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Commercial	2	\$749,255	\$749,255	\$1,498,510	\$374,628	-
Industrial	6	\$4,297,947	\$6,446,921	\$10,744,868	\$2,686,217	-
Mixed Use	2	\$776,025	\$776,025	\$1,552,050	\$388,013	-
Mobile/ Manufactured Homes	3	\$562,512	\$281,256	\$843,768	\$210,942	7
Residential	26	\$7,595,574	\$3,797,787	\$11,393,361	\$2,848,340	64
Vacant Improved	2	\$1,723,807	\$0	\$1,723,807	\$430,952	-
TOTAL	41	\$15,705,120	\$12,051,244	\$27,756,364	\$6,939,091	72

Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Table Q-18 Templeton CSD 0.2% (500 year) Floodplain Risk

PROPERTY TYPE	PARCEL COUNT	IMPROVED VALUE	CONTENT VALUE	TOTAL VALUE	LOSS ESTIMATE	POPULATION
Residential	3	\$520,680	\$260,340	\$781,020	\$195,255	7
Total	3	\$520,680	\$260,340	\$781,020	\$195,255	7

Analysis Source: San Luis Obispo Assessor Data November 15, 2024, FEMA NFHL Effective Date 6/6/2024, WSP GIS Analysis

Population at Risk

In terms of population exposure, an estimated 72 residents are located within the 1% annual chance flood zone, primarily in residential and mobile home parcels. The 0.2% annual chance zone includes an additional seven people, all in residential areas. While the total population exposed is relatively low, the presence of mobile homes and mixed-use properties indicates potential vulnerability that may warrant targeted resilience measures.

Critical Facilities at Risk

shows Templeton CSD critical facility assets exposed to FEMA and DWR awareness 1% flood hazards by FEMA lifeline.

Table Q-19 Templeton CSD Critical Facility Assets Exposed to FEMA and DWR Awareness 1% Flood Hazards by FEMA Lifeline

COMMUNITY SERVICE DISTRICT	COMMUNICATIONS	ENERGY	FOOD, HYDRATION, SHELTER	HAZARDOUS MATERIAL	HEALTH AND MEDICAL	SAFETY AND SECURITY	TRANSPORTATION	WATER SYSTEMS	TOTAL COUNT
Templeton	-	-	-	-	-	-	4	-	4

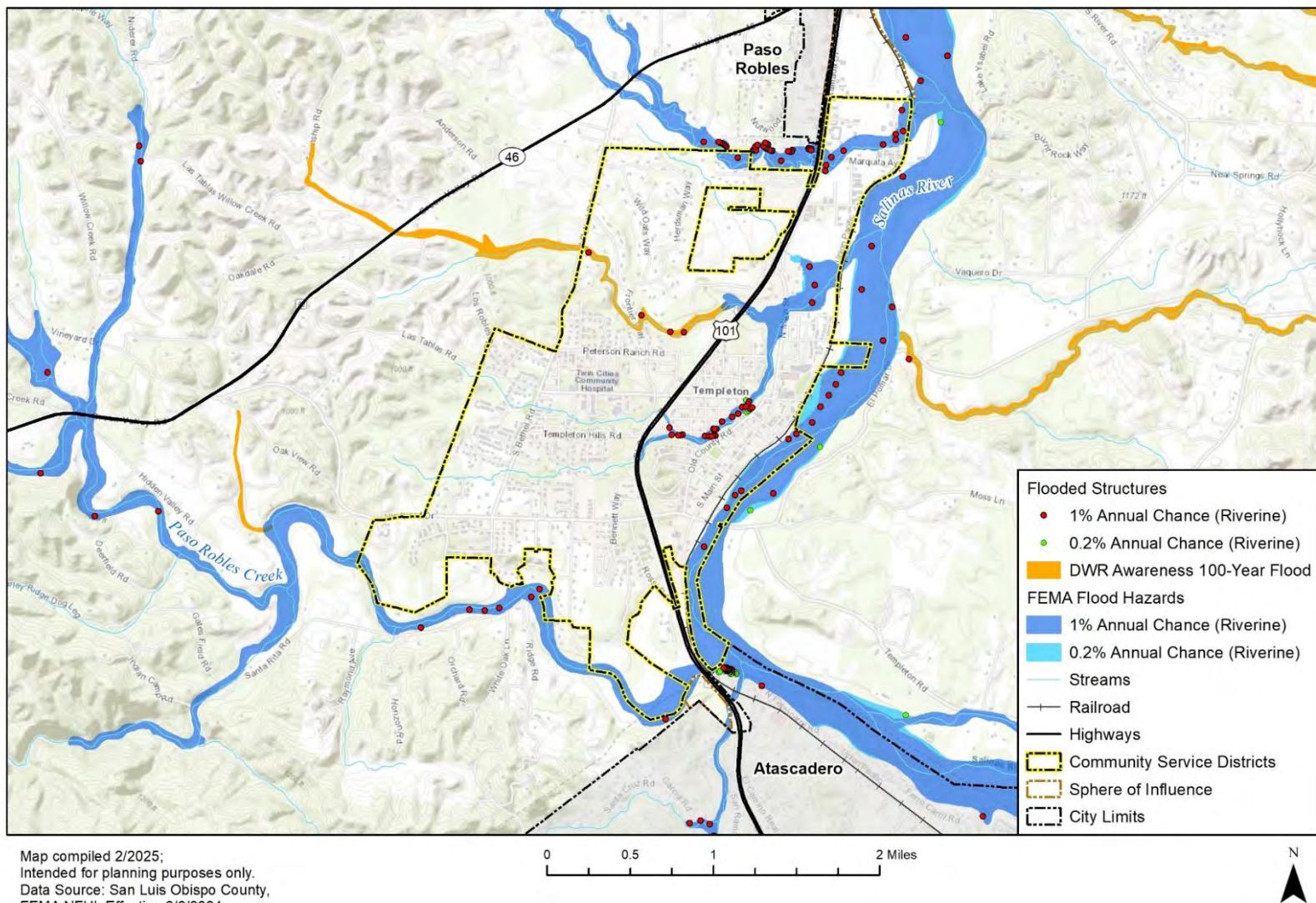
Source: San Luis Obispo County, FEMA NFHL Effective Date 6/6/2024, CalARP, HIFLD, NBI, NID, FCWCD, WSP Analysis

Templeton CSD has four critical facilities located within the 1% annual chance floodplain, all associated with the transportation lifeline. While there are no identified assets in other FEMA lifeline categories, such as water, health and medical, or safety and security, the presence of transportation infrastructure in the flood zone underscores potential vulnerabilities.

Disruptions to transportation routes could hinder emergency response, evacuations, and access to essential services. Ongoing maintenance, drainage improvements, and coordination with sister-agencies may help mitigate these risks, even in the absence of broader critical infrastructure exposure.

, below, shows parcels at risk of flooding, as well as flooding extents.

Figure Q-4 Parcels at Risk of Flooding in Templeton



Q.3.3.9 Landslide and Debris Flows

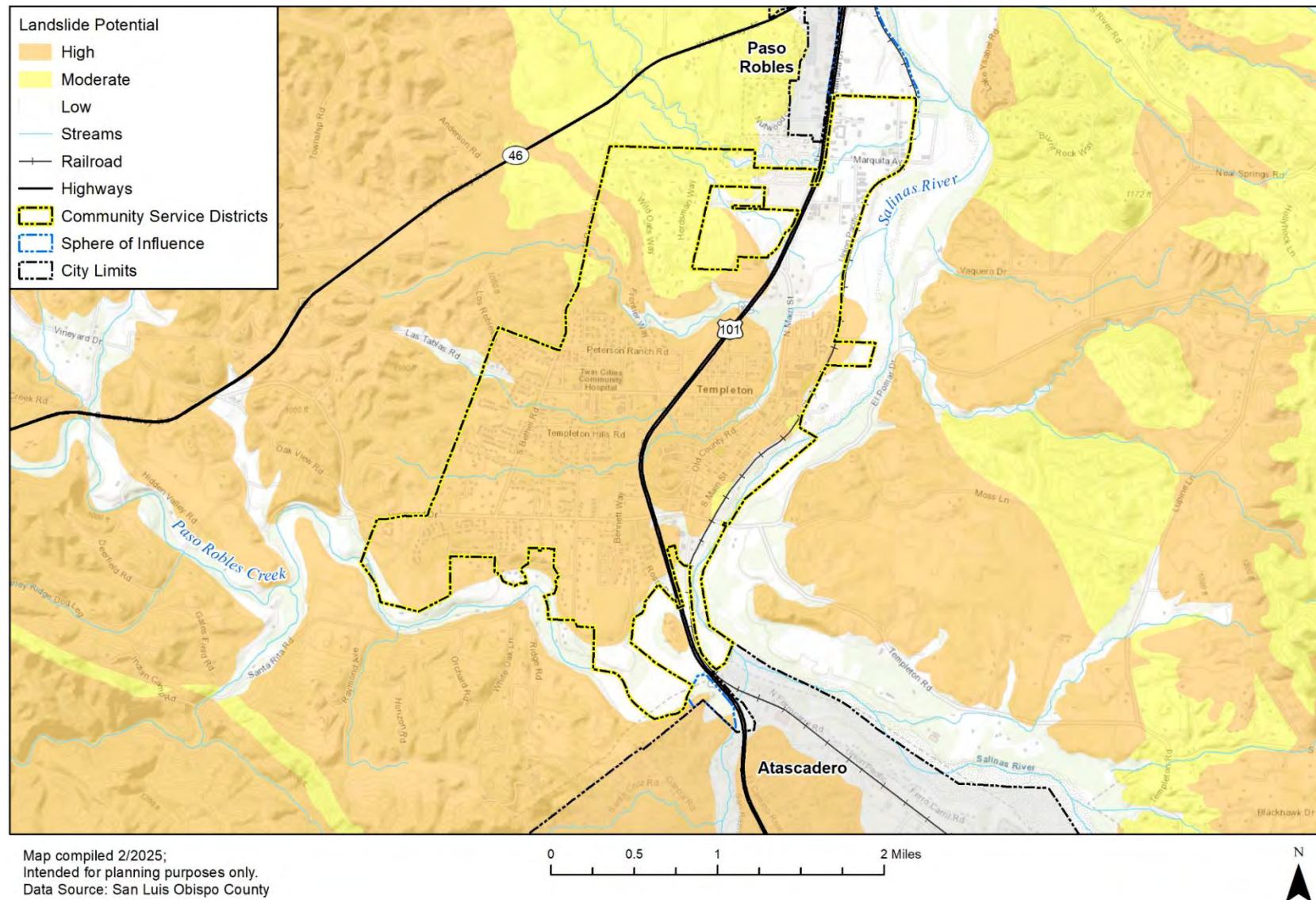
The Templeton Community Service District LPT gave landslide and debris flow a **low** overall significance rating. Below shows that a majority of the service district has a high potential for landslides with the northern part of the district having a moderate potential. Of the properties exposed, 2,024 are residential with 4,999 people exposed to landslide potential as shown in below. Throughout the entire service district properties exposed to landslide potential have a total value of over \$1.4 billion with 5,147 people exposed (though direct impacts to people is not considered to be significant). Templeton is surrounded by jurisdictions given a medium or high overall significance rating for landslides and debris flow, such as the cities of Atascadero and Paso Robles both north and south of the service district.

Table Q-20 Templeton CSD Improved Properties Exposed to Landslide Potential by Property Type

PROPERTY TYPE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	151	\$144,470,334	\$144,470,334	\$288,940,668	-
Exempt	20	\$4,321,442	\$4,321,442	\$8,642,884	-
Industrial	5	\$5,497,248	\$8,245,872	\$13,743,120	-
Mixed Use	44	\$9,508,472	\$9,508,472	\$19,016,944	-
Mobile/Manufactured Homes	13	\$2,637,781	\$1,318,891	\$3,956,672	32
Multi-Family Residential	47	\$58,595,497	\$29,297,749	\$87,893,246	116
Residential	2,024	\$675,935,812	\$337,967,906	\$1,013,903,718	4,999
Vacant Improved	12	\$4,832,003	\$0	\$4,832,003	-
Total	2,316	\$905,798,589	\$535,130,665	\$1,440,929,254	5,147

Source: San Luis Obispo Assessor Data November 15, 2024, WSP GIS Analysis

Figure Q-5 Landslide Risk in the Templeton Area



Q.3.3.10 Subsidence

Subsidence was given a **low** overall significance rating from the Templeton LPT. Section 5.3.13.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide, and the typical impacts are similar in and around Templeton. While subsidence does not typically affect people, it can result in foundation damage and damage to linear infrastructure. The 1997 subsidence incident that continues to affect Templeton, Paso Robles, and Atascadero is profiled in Section 5.3.13.4 of the base plan. Although subsidence isn't a major concern for Templeton and is rated low, it will still be important to monitor groundwater extraction, as this is the main cause of subsidence in California. Additionally, land elevation should also be monitored to prevent any subsidence-related hazards in the city.

Q.3.3.11 Wildfire

Wildfire is a **Medium** significance hazard for the Templeton Community Services District. Templeton is surrounded by grasslands and oak woodlands that are highly susceptible to ignition, particularly in the dry summer and fall months. Persistent drought, combined with hotter temperatures and erratic wind patterns have increased fire weather severity in the region.

Following the methodology described in the wildfire hazard Section 5.3.15 Wildfire of the Base Plan, along with the GIS parcel analysis discussed in more detail under Section 5.2 Asset Summary, a wildfire vulnerability analysis for Templeton CSD was completed. However, wildfire hazards have been rated by the district's planning team as holding high significance based on the community's experience and historical evidence.

GIS analysis shows the critical facilities in Templeton CSD that are exposed to fire hazard severity, categorizing them by severity level and facility type. The exposure of these critical assets to wildfire hazards poses significant risks to communications. GIS analysis shows that there is a total of eight (8) critical facilities that fall in the high fire severity zone rating, nine (9) that fall into the moderate fire hazard severity zone rating and none that fall into the very high fire hazard severity zone.

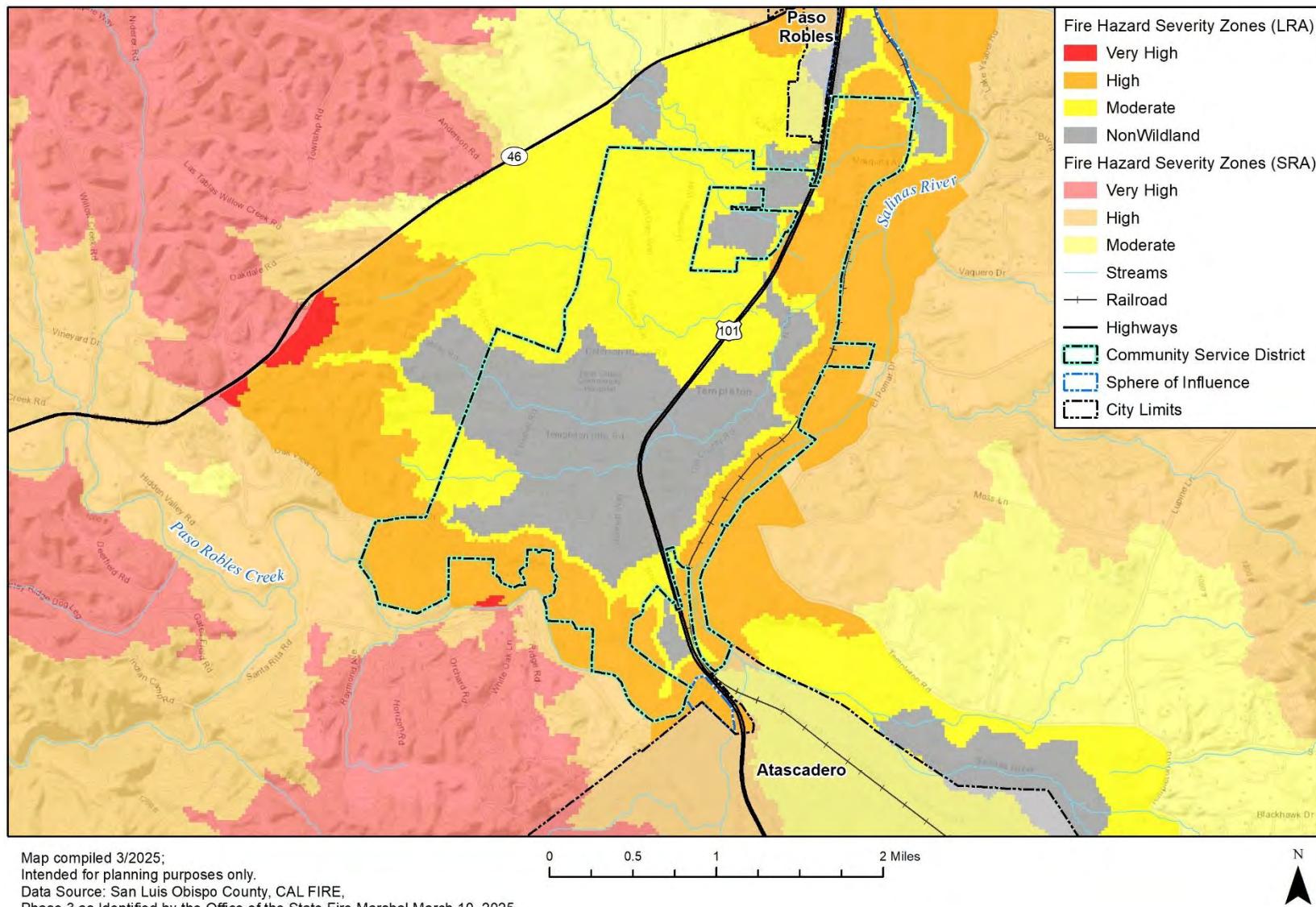
In Templeton CSD, 862 properties are situated within wildfire hazard exposure zones ranging from moderate to very high. Of these 314 are located in the High Fire Hazard Severity Zone, while 548 properties fall within the Moderate Fire Hazard Severity Zone. Collectively, these properties represent a total assessed value of \$683,780,212 and impact approximately 1,788 residents across all fire hazard severity zones. shows the properties in the district exposed to Fire Hazard Severity Zones. depicts the Fire Hazard Severity Zones in Templeton CSD.

Table Q-21 Templeton CSD Improved Properties Exposed to Fire Hazard Severity Zones

PROPERTY TYPE	STRUCTURE COUNT VERY HIGH	STRUCTURE COUNT HIGH	STRUCTURE COUNT MODERATE	TOTAL STRUCTURE COUNT	IMPROVED VALUE	ESTIMATED CONTENT VALUE	TOTAL VALUE	POPULATION
Commercial	-	27	22	49	\$54,455,034	\$54,455,034	\$108,910,068	-
Exempt	-	5	4	9	\$949,570	\$949,570	\$1,899,140	-
Industrial	-	36	5	41	\$35,277,728	\$52,916,592	\$88,194,320	-
Mixed Use	-	18	10	28	\$6,630,446	\$6,630,446	\$13,260,892	-
Mobile/Manufactured Homes	-	-	5	5	\$1,029,992	\$514,996	\$1,544,988	12
Multi-Family Residential	-	12	7	19	\$19,143,948	\$9,571,974	\$28,715,922	47
Residential	-	208	492	700	\$289,383,656	\$144,691,828	\$434,075,484	1,729
Vacant Improved	-	8	3	11	\$7,179,398	\$0	\$7,179,398	-
Total	0	314	548	862	\$414,049,772	\$269,730,440	\$683,780,212	1,788

Source: San Luis Obispo Assessor Data November 15, 2024, CAL FIRE - FHSZ Phase 3 March 10, 2025, WSP GIS Analysis

Figure Q-6 Templeton CSD Fire Hazard Severity Zone+



Q.3.3.12 Human Caused: Hazardous Materials

The Cal OES Warning Center reports 26 hazardous materials incidents in the Templeton CSD from 1994 through October 24, 2018; as noted in Section 5.3.13 of the Base Plan, this likely excludes a large number of unreported minor spills. (Cal OES reports an additional 209 incidents in unincorporated San Luis Obispo County, however a lack of data makes it difficult to know if any of those took place within the CSD boundaries.) This constitutes 5% of the hazardous materials incidents reported countywide during the same timeframe and averages out to roughly 3.9 incidents per year. As noted in Section 5.3.13 only around 6% of reported hazardous materials incidents result in injuries, fatalities, or evacuations.

Q.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 which of these policies or programs were 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. Additionally, 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 Templeton CSD capabilities are summarized below.

Q.4.1 Regulatory Mitigation Capabilities

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 Chapter 6 Capability Assessment for specific information related to the County's mitigation capabilities.

Table Q-22 Templeton CSD Regulatory Mitigation Capabilities

REGULATORY TOOL	YES/NO	COMMENTS
General Plan	No	SLO County Planning & Building
Zoning ordinance	No	SLO County Planning & Building
Subdivision ordinance	No	SLO County Planning & Building
Growth management ordinance	N/A	
Floodplain ordinance	No	SLO County
Other special purpose ordinance (stormwater, steep slope, wildfire)	No	SLO County
Building code and Type/Year	No	SLO County Planning & Building
Building code Effectiveness Grading System and Rating (if applicable)	No	
Fire Department ISO rating	Yes	ISO Rating 3/3X

REGULATORY TOOL	YES/NO	COMMENTS
Building Department ISO Rating	No	SLO County Planning & Building
Erosion or sediment control program	No	SLO County Planning & Building
Stormwater management program	No	SLO County Public Works
Site plan review requirements	No	SLO County Planning & Building
Capital improvements plan	Yes	Every Budget Year
Economic development plan		
Local emergency operations plan	No	SLO County
Other special plans	Yes	Water Conservation Policy
Flood insurance study or other engineering study for streams	No	SLO County Flood Control District
Elevation certificates (for floodplain development)	No	SLO County Planning & Building

Source: Wood Data Collection Guide, 2019

Discussion on Existing Building Codes, Land Use and Development Regulations

The Templeton Community Design Plan outlines specific standards for development within the Templeton urban reserve line. All minor use permits, conditional use permits, and subdivision applications must comply with the community design plan. Compliance includes obtaining minor use permits for new construction or exterior alterations and are required for all new construction where a land use permit is otherwise required except for structures such as agricultural and residential accessory structures, multi-family residential residences, public parks, and single-family dwellings. (Templeton Community Standards, Section 22.94.080).

Land uses are limited to specific structures in certain areas unless a permit is obtained. For example, the area between Highway 101 and North Main Street is limited to bars and nightclubs, restaurants, gas stations, offices, hotels and motels unless a permit is applied for and approved. Another area, from South Main Street to Templeton Road is limited to libraries and museums, outdoor sports and recreation, and public assembly and entertainment.

Specific land use requirements such as these can be found in the Templeton Community Design Plan in Section 22.06.030.

Q.4.2 Administrative/Technical Mitigation Capabilities

identifies the personnel responsible for activities related to mitigation and loss prevention in the Templeton Community Services District.

Table Q-23 Templeton CSD Administrative/Technical Mitigation Capabilities

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/ POSITION	COMMENTS
Planner/engineer with knowledge of land development/land management practices	Yes	Utilities Department District Engineer	Develops and maintains the District Rules, Regulations and Ordinances applicable to water and wastewater. Plan, to provide more detailed guidance for the development of more specific areas. Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the local rules, regulations, codes and ordinances.

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/ POSITION	COMMENTS
			Anticipates and acts on the need for new plans, policies, and code changes. Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	TCSD Engineer	Oversees the effective, efficient, fair, and safe enforcement of the California Building Code.
Planner/engineer/scientist with an understanding of natural hazards	Yes	Utilities Department District Engineer	Reviews Grading and Building Plans to ensure that development is in compliance with existing policies and codes relating to mitigation of natural hazards.
Personnel skilled in GIS		SLO County Building Official	SLO County Planning & Building
Full time building official	Yes	SLO County (Engineering Division)	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the District.
Floodplain manager	Yes	SLO County (Engineering Division)	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the District.
Emergency manager	Yes	Emergency Services (Fire Chief)	Coordinates local response and relief activities and works closely with county, state, and federal partners to support planning and training and to provide information and coordinate assistance.
Grant writer	No		
Other personnel			
GIS Data Resources (Hazard areas, critical facilities, land use, building footprints, etc.)	Yes	County	
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	Reverse 911 and EAS activated through Sheriff's Department	
Procurement Services Manager	No		

Source: Wood Data Collection Guide, 2019

Q.4.3 Fiscal Mitigation Capabilities

identifies financial tools or resources that the CSD could potentially use to help fund mitigation activities.

Table Q-24 Templeton CSD 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	Yes
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	Yes
Incur debt through private activities	Yes
Withhold spending in hazard prone areas	Yes

Q.4.4 National Flood Insurance Program

As a special district, Templeton is not eligible to participate in the National Flood Insurance Program (NFIP) and falls under the County's participation and administration. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

Q.4.5 Mitigation Outreach and Partnerships

The Templeton Community Services District conducts several ongoing public education or information programs online and in person, to include fire safety, disaster preparedness, wildland preparedness, responsible water use, and FOG (fats, oils and greases). The district website includes extensive information on water and resource conservation, irrigation and landscaping, stormwater management and pollution reduction, and litter removal programs. The district fire department also conducts community outreach in person, providing tours of the station and equipment, organizing events, and providing fire prevention and awareness presentations focused on fire safety, smoke detectors, stop, drop, & roll, and emergency meeting locations.

Q.4.6 Opportunities for Enhancement

Based on the capability assessment, the Templeton Community Services District has several existing mechanisms in place that already 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 district will lead to more informed staff members who can better communicate this information to the public.

Q.5 Mitigation Strategy

The district developed the mitigation strategy as part of the 2019 County HMP update, as described in Chapter 7 Mitigation Strategy, and updated it in 2025.

Q.5.1 Mitigation Goals and Objectives

The district mitigation strategy is aligned with the overall County hazard mitigation goals detailed in Section 7.1 in the Base Plan.

Q.5.2 Completed 2019 Mitigation Actions

During the 2025 planning process the Templeton LPT reviewed all the mitigation actions from the 2019 plan and determined that none had been completed or deleted.

Q.5.3 Mitigation Actions

The planning team for the Templeton Community Services 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.

Timeline and cost definitions are noted in Section 7.3.2 of the Base Plan.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Dense Fog/Freeze.

Table Q-25 Templeton Community Services 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
T.1	Adverse Weather: Thunderstorm; Adverse Weather: High Wind; Adverse Weather: Extreme Heat; Dam Incidents, Earthquake; Flood; Wildfire	Determine backup power needs and requirements for various locations within the District determined to be critical to maintain essential District services. Install quick-connects at identified facilities. Research and purchase appropriately sized generators or portable generator(s).	Facilities Maintenance Department: Administration and Finance	Moderate. General fund, FEMA HMGP, USDA Community Wildfire Defense Grant (CDWG)	Medium	Medium-term	Templeton Fire is Equipped with a backup generator that powers the Fire Station and District Office. All of our wells and sewer lift station either have or are capable of backup power. This action would continue as new facilities are identified or come on-line.
T.2	Drought and Water Shortage, Subsidence	Initiate a Drought public awareness and educational campaign to discuss the impacts of drought and water shortage, and steps each individual can take during periods of drought and ways to reduce water consumption during periods of drought.	District Water Services	Little to No Cost. General fund, staff time	Medium	Annual implementation	Ongoing
T.3	Wildfire	Continue to support the District's weed abatement program to provide additional wildfire mitigation through vegetation management.	Fire and Emergency Services; Parks and Recreation	Low. General fund, staff time	Medium	Annual implementation	Templeton Fire has and will continue with its Fuel Reduction programs.
T.4	Flood, Drought and	Support the County's Nacimiento Water Pipeline	County Public Works; County	Low (for District)	Medium	Ongoing through 2027	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
	Water Shortage, Landslide and Debris Flow, Subsidence	Relocation and Resilience Project. In early 2023, winter storms caused riverbank erosion that exposed a segment of the Nacimiento Water Project pipeline, an essential part of Templeton's water supply infrastructure. This exposure highlighted the vulnerability of key facilities to future flooding. As a result, Templeton CSD, in coordination with the County Flood Control and Water Conservation District, is planning to relocate the pipeline to a safer location.	Flood Control and Water Conservation District; District Water Services	General fund, staff time			

Q.6 Implementation and Maintenance

Moving forward, the Templeton Community Services 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 of the main plan.

Q.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 Community Services District to help inform updates of the Templeton Community Plan and in the development of additional local plans, programs and policies. Understanding the hazard that pose a risk and the specific vulnerabilities to the jurisdiction will help in future capital improvement planning for the District. The 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 Templeton Community Services District area. As noted in Section 8, the HMPC representatives from the Templeton Community Services 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 plan review meeting.

Q.6.2 Monitoring, Evaluation and Updating the Plan

The Templeton Community Services District 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 CSD General Manager will be responsible for representing the Community Services District in the County HMPC, and for coordination with County staff and departments during plan updates. The Templeton Community Services 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 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.

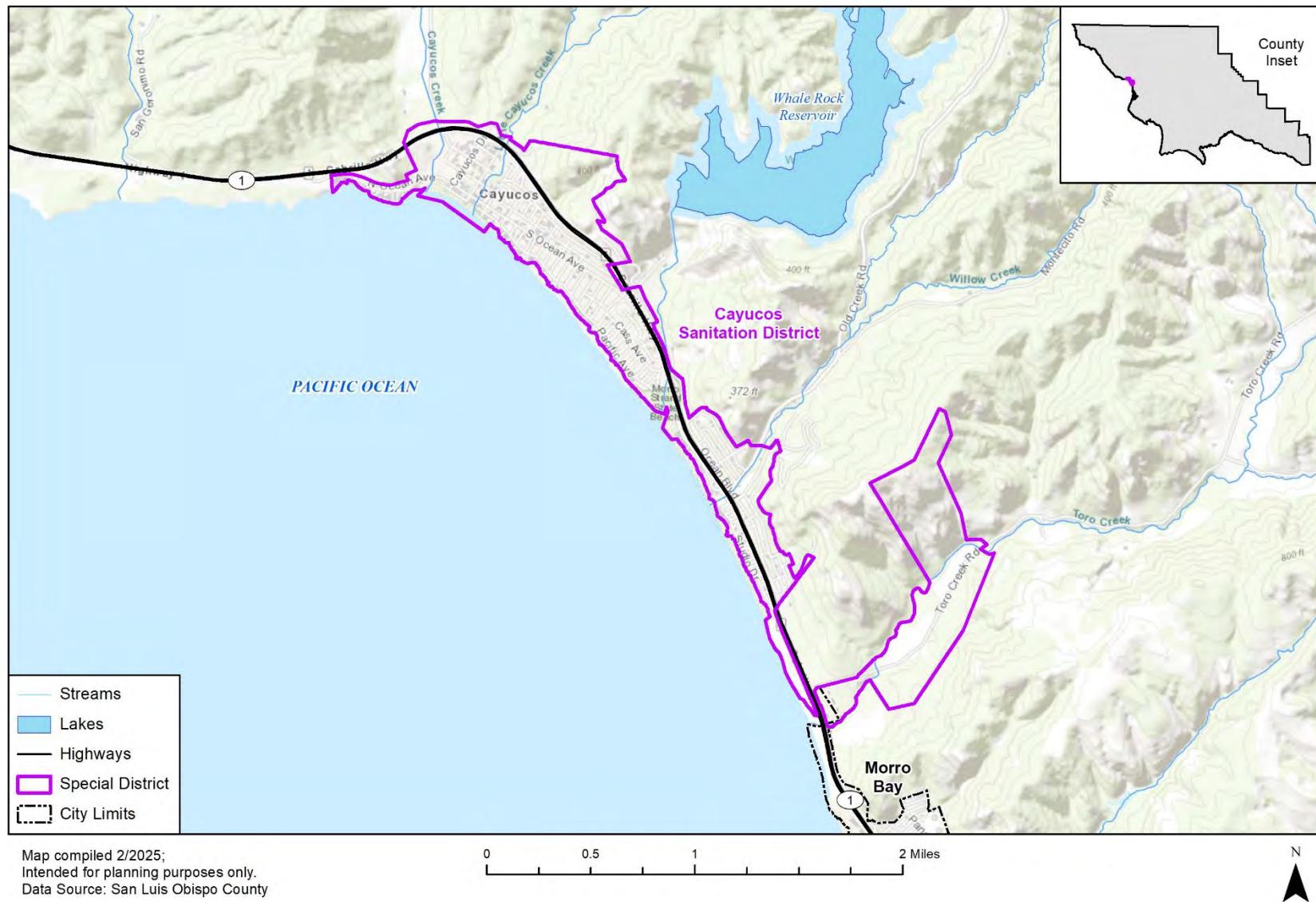
The District had representation on the County Multi-Jurisdictional Hazard Mitigation Planning Committee and utilized a Local Planning Team (LPT) subcommittee to develop input into the annex. Table R-1 shows the Cayucos Sanitary District boundaries.

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	Community Action Partnership of San Luis Obispo County	Chief Operating Officer

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



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 coastal storms, tsunami, and flooding, while reducing hazard vulnerability to these hazards and increasing overall resiliency. This is also a completion of a project identified in the 2019 Plan (See Section R.5.2). For all other hazards identified in Section R.3.3, the district's net vulnerability has not increased or decreased due to changes in development since the previous plan was approved.

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
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, Lightning, Hail	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	Medium
Earthquake	Extensive	Occasional	Limited	High
Flooding	Significant	Likely	Critical	High
Landslide and Debris Flows	Limited	Occasional	Limited	Medium
Tsunami	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	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			
Probability of Future Occurrences				

HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Highly Likely: Near 100% chance of occurrence in next year or happens every year.	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			
Likely: Between 10 and 100% chance of occurrence in next year or has a recurrence interval of 10 years or less.	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			
Occasional: Between 1 and 10% chance of occurrence in the next year or has a recurrence interval of 11 to 100 years.	Significance			
Unlikely: Less than 1% chance of occurrence in next 100 years or has a recurrence interval of greater than every 100 years.	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:

- Adverse Weather: Freeze, Dense Fog
- 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-5 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/Hail

Adverse Weather within the Cayucos SD service area 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 entire property and facility inventory of the Cayucos SD as noted in R.3.2 is exposed to the impacts of thunderstorm/heavy rain/lightning due to the widespread nature of these hazards.

Of primary concern for the district is its facilities, including the Sewer Conveyance System, Sewer Lift Stations, and the Water Resource Recovery Facility, and keeping them running adequately to serve the needs of the community. In adverse weather conditions it's possible for power outages, which could potentially take these facilities offline for a period of time and prevent the district from operating. Each of these facilities could also possibly be damaged by hail, lightning, or heavy rain events, which could trigger other damaging cascading hazards such as flooding or landslides. District employees may also be vulnerable to lightning strikes if working outdoors during adverse weather conditions. Hazard awareness is important to minimize impacts to District staff.

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. The entire property and facility inventory of the Cayucos SD is exposed to the impacts of high winds due to the widespread nature of these hazards.

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.

Of primary concern for the district is its facilities and keeping them running adequately to serve the needs of the community. In high wind conditions it's likely for downed trees and power lines, and subsequent power outages, which could potentially take these facilities offline for a period of time and prevent the district from operating. 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. High wind could present a hazard, through blowing debris or

falling trees, to district staff if working outdoors during adverse weather conditions. Hazard awareness is important to minimize impacts on District staff.

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. Each of these consequences of extreme heat can negatively impact the district's facilities and infrastructure.

Public health and safety are also at greater risk during extreme heat events, impacting the entire population of the service area of Cayucos SD and district workers. 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 Coastal Storm/Coastal Erosion/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.

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. This puts all of the district's infrastructure and assets at increased risk of damage from Coastal Storms. Direct impacts to district staff are not anticipated to be significant.

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-2 and Figure R-3 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-2 Cayucos Sanitary District Sea Level Rise Scenario Analysis: Tidal Inundation Only



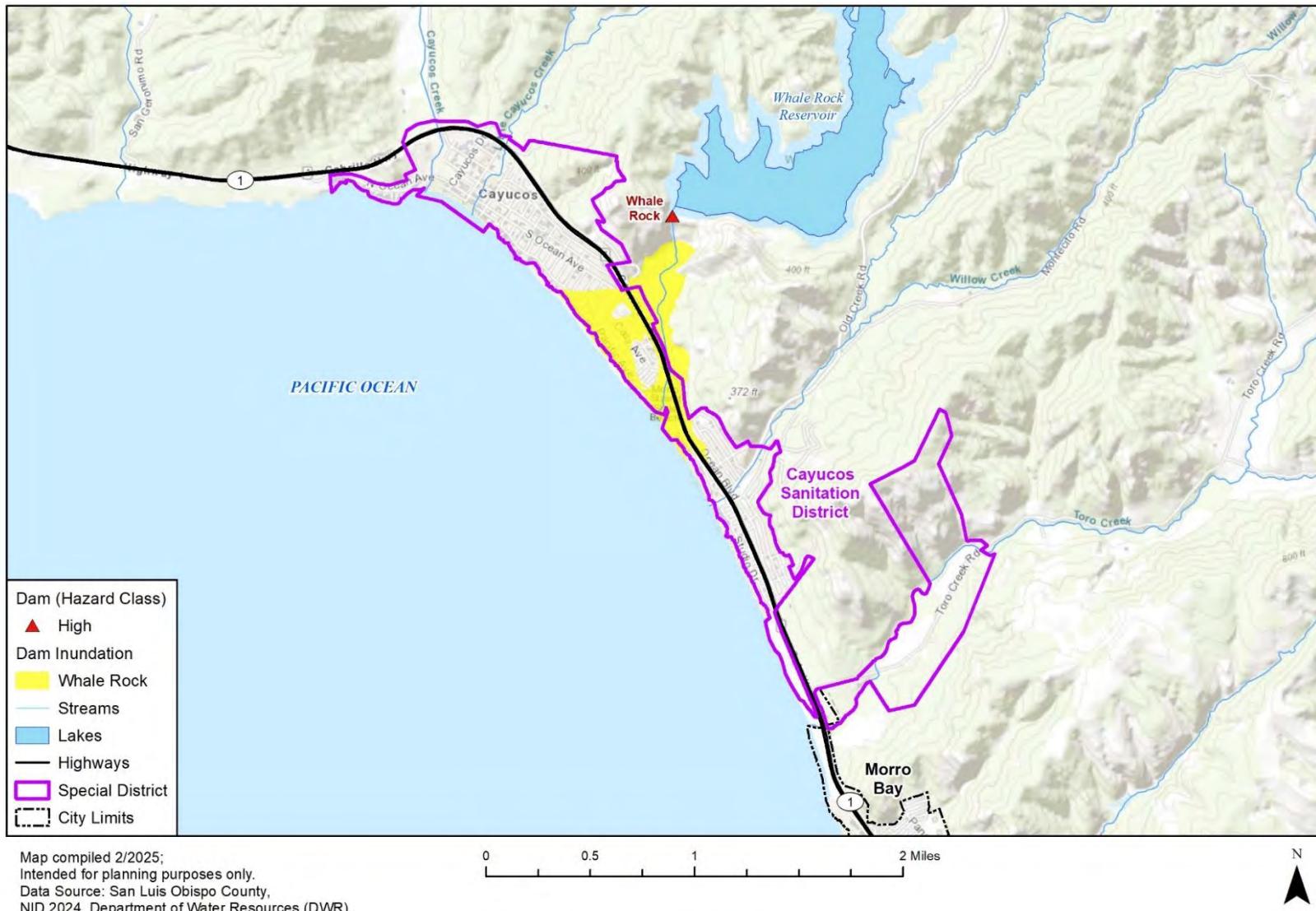
Figure R-3 Cayucos SD Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood



R.3.3.5 Dam Incidents

The District rated dam incident a **medium** significance hazard. The District is directly 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 and the Cayucos Water Treatment Plant along with a good portion of town from 13th street south to Studio. An incident like this would put district employees at risk of dam inundation flooding and would likely damage enough of the district's infrastructure to completely take the district out of service until repairs could be made. While the consequences of this would be catastrophic, a scenario such as this is very unlikely.

Figure R-4 Whale Rock Dam Inundation



R.3.3.6 Drought and Water Shortage

The LPT noted drought as a potential concern due to the widespread and regional nature of its impacts. The Cayucos Sanitation District 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. Given these operational concerns, drought is a **Medium** significance hazard for the District. The primary source of water for Cayucos is Whale Rock Reservoir, which could potentially be impacted by a prolonged severe drought.

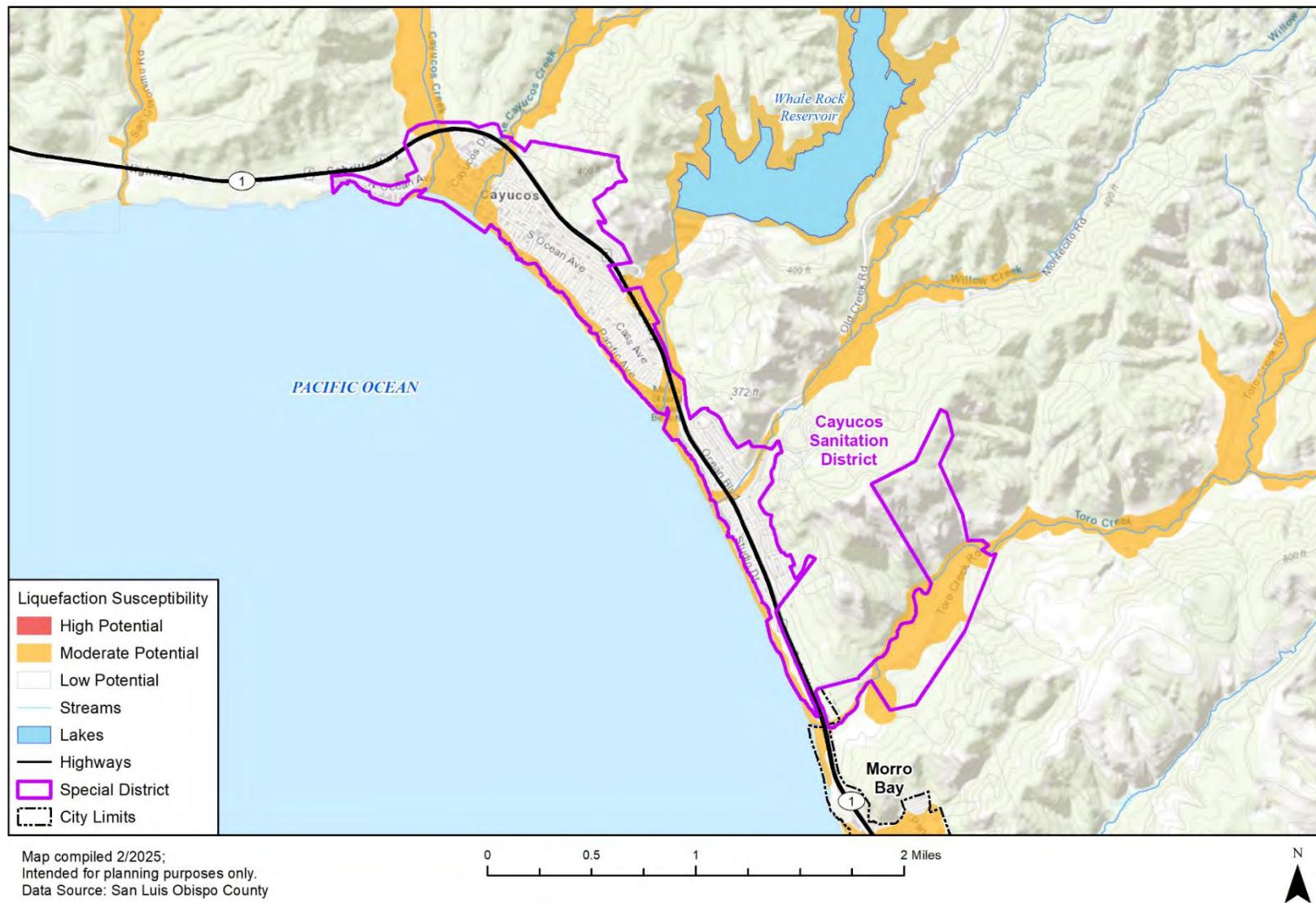
The District's wastewater infrastructure, including its treatment plant, pumping stations, and sewer mains, is vulnerable to drought-related supply reductions. Prolonged droughts reduce the availability of supplemental water sources, which may be necessary for treatment processes, equipment cooling, and facility operations. 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. All of these factors discussed could subsequently impact the health and wellbeing of the population served by the Cayucos SD.

R.3.3.7 Earthquake

Overall, earthquake hazards have been rated by the LPT as holding **high** significance for the District. 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. Sewer 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 wastewater lines and facilities from a major earthquake could total over \$531 million countywide. Damages to facilities and infrastructure from seismic activity 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. The LPT noted the districts sewer conveyance system, sewer lift stations, and the Water Resource Recovery Facility, together valued at over \$130 million, are vulnerable to the impacts of earthquakes.

Soil in the low bluffs and along riparian corridors in Cayucos are subject to moderate liquefaction risk due to seismic activity. Structures on liquefiable soils indicated in Figure R-5 below may be subject to increased damage. This includes all pipeline infrastructure in the district, the district's central office building, and the Cayucos Water Treatment Plant. Damages to facilities and infrastructure from seismic activity or liquefaction could also impede the ability of the District and employees to perform its core functions, with an extended downtime impacting the recovery of the wider community and San Luis Obispo County as a whole.

Figure R-5 Liquefaction Risks in Cayucos



R.3.3.8 Flood

Overall, flood hazards have been rated by the LPT as holding **high** significance for the District. 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. The LPT noted the districts sewer conveyance system, sewer lift stations, and the Water Resource Recovery Facility, together, valued at over \$130 million, are all vulnerable to the impacts of flooding. Risk to district employees is considered low.

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.

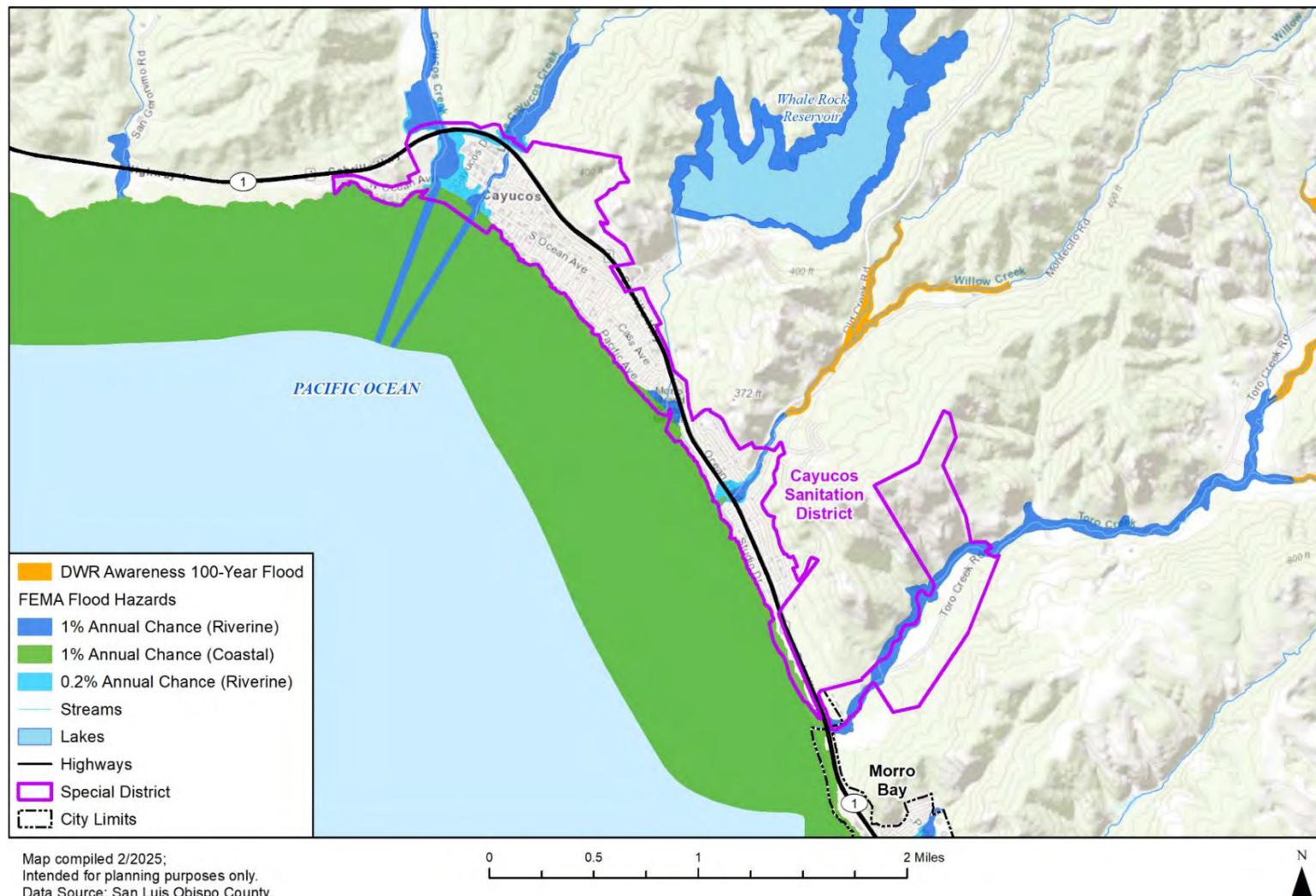
Beyond infrastructure improvements, the District has focused on maintaining and enhancing its stormwater management practices. Efforts include regular maintenance of drainage systems and collaboration with San Luis Obispo County to address runoff and erosion concerns, particularly in areas with steep 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 is not eligible to participate independently in the National Flood Insurance Program (NFIP) but will continue to support the County's participation in and compliance with the 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-6 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. Further information on this hazard at the county level can be found in Section 5.3.13 of the base plan.

Figure R-6 FEMA Flood Hazard Areas in Cayucos Sanitary District

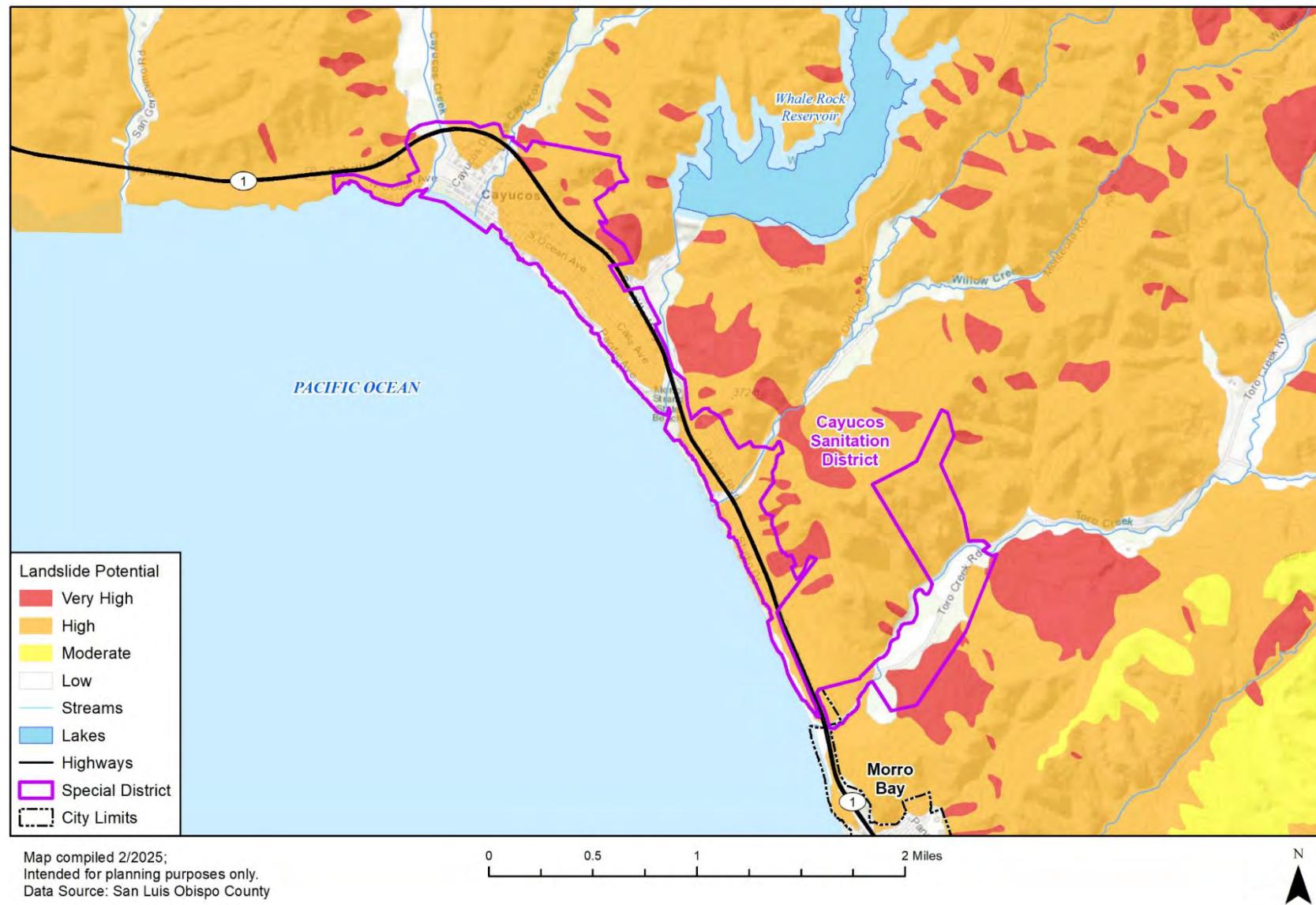


R.3.3.9 Landslides and Debris Flow

The LPT gave the Cayucos Sanitary District a **medium** overall significance rating. Landslides can damage wastewater 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.

Figure R-7 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-7 below. Essentially, all of the district's property and infrastructure assets are vulnerable to damage in a landslide, due to the steep terrain of the narrow coastal strip which makes the area likely to experience landslides. Risk to district employees is considered low. 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-7 Landslide Potential Areas in Cayucos Sanitary District

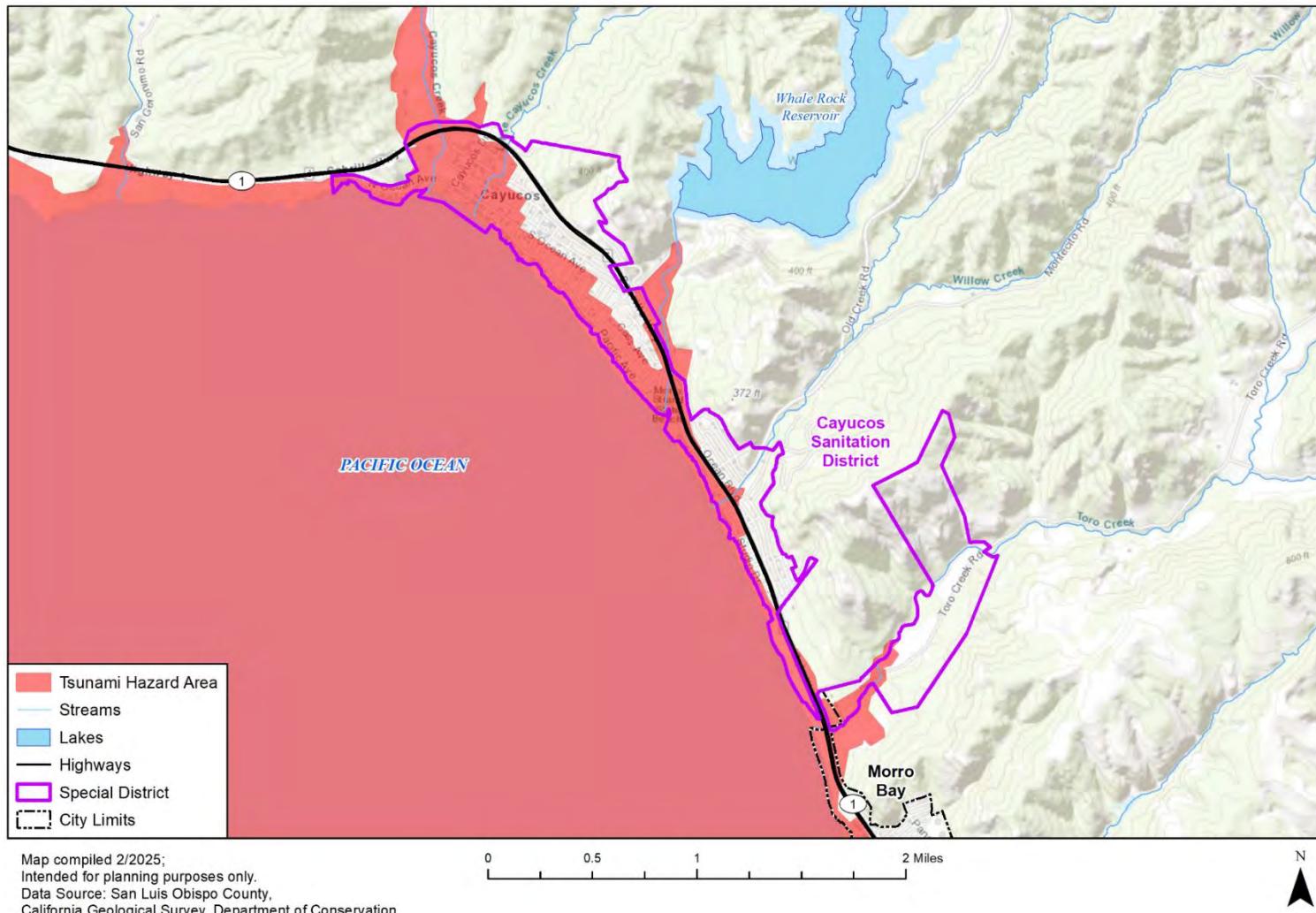


R.3.3.10 Tsunami

Overall, tsunami hazards have been rated by the LPT as holding **medium** significance for the District.

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-8). 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. All of the District's infrastructure is located within the Tsunami inundation zone and could be destroyed or damaged. District staff could be harmed and affected by limited egress options by vehicle, as watercraft would not be an available option for evacuation and emergency service access.

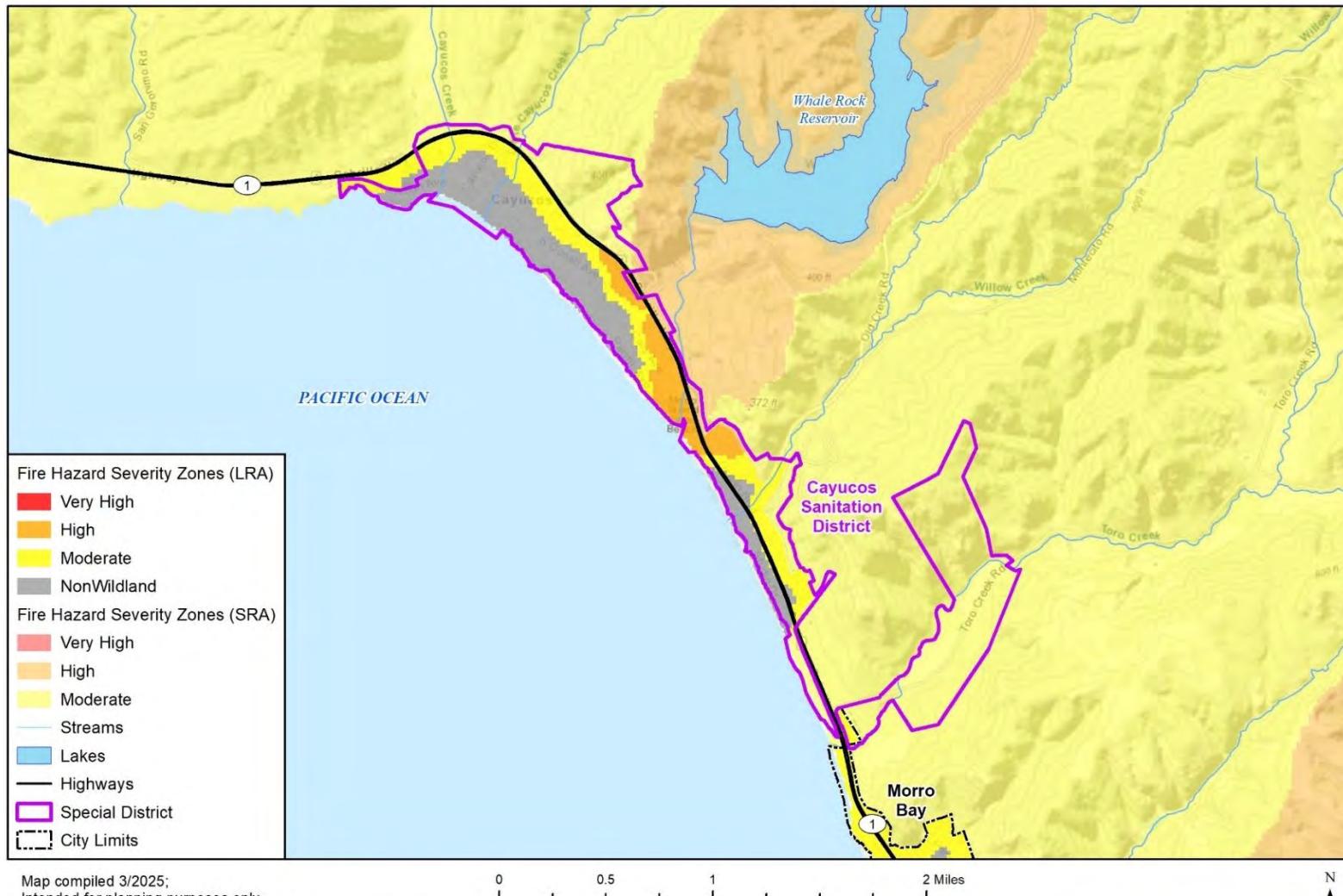
Figure R-8 Tsunami Inundation Areas in the Cayucos Sanitary District



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. All of the district's primary infrastructure is situated in more urbanized areas, which could still be heavily impacted by wildfire activity. Potential impacts could mean temporary disruptions to wastewater treatment operations, and even total loss of district facilities. District staff could be impacted by evacuations. Figure R-9 depicts the Fire Severity Hazard Zones for Cayucos Sanitary District.

Figure R-9 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	No	Included in the San Luis Obispo County efforts
Zoning ordinance	No	Included in the San Luis Obispo County efforts
Subdivision ordinance	No	Included in the San Luis Obispo County efforts
Growth management ordinance	No	Included in the San Luis Obispo County efforts
Floodplain ordinance	No	Included in the San Luis Obispo County efforts

REGULATORY TOOL	YES/ NO	COMMENTS
Other special purpose ordinance (stormwater, water conservation, wildfire)	No	Included in the San Luis Obispo County efforts
Building code	No	Included in the San Luis Obispo County efforts
Fire department ISO rating	No	County/CAL FIRE
Erosion or sediment control program	No	Included in the San Luis Obispo County efforts
Stormwater management program	No	Included in the San Luis Obispo County efforts
Site plan review requirements	Yes	Cayucos Sanitary District
Capital improvements plan	Yes	Cayucos Sanitary District
Economic development plan	No	Included in the San Luis Obispo County efforts
Local emergency operations plan	No	Included in the San Luis Obispo County efforts
Other special plans	Yes	District Sewer System Management Plan
Flood Insurance Study or other engineering study for streams	No	Included in the San Luis Obispo County efforts
Elevation certificates (for floodplain development)	No	Included in the San Luis Obispo County efforts

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

PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION
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	No	Included in the San Luis Obispo County efforts
Full time building official	No	Included in the San Luis Obispo County efforts
Floodplain manager	No	Included in the San Luis Obispo County efforts
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.)	No	Included in the San Luis Obispo County efforts
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 National Flood Insurance Program

As a special district, Cayucos is not eligible to participate in the National Flood Insurance Program (NFIP) and falls under the County's floodplain management. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

R.4.6 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.4.7 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.4.8 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. Timeline and project cost definitions are noted in Section 7.3.2 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.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Hail.

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; Adverse Weather: High Wind and Tornado; Adverse Weather: Extreme Heat;; Coastal Storm; Dam incident; Drought and Water Shortage; Earthquake; Flood; Landslides and Debris Flow; 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, FEMA 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; Adverse Weather: High Wind and Tornado; Adverse Weather: Extreme Heat;; Coastal Storm/Coastal	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; General Fund, 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.

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
	Erosion/Sea Level Rise; Drought and Water Shortage, Earthquake; Flood; Landslides and Debris Flow						
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 replace or upsize the 1950s era sewer mains and manholes with new, modern era materials.	Cayucos Sanitary District Engineering and Planning; Cayucos Sanitary District Operations	Very High; FEMA Hazard Mitigation Assistance Grant, California Coastal Conservancy Grants, In-Kind Donations	High	Long-Term	New in 2025
CAY.4	Coastal Storm/Coastal Erosion/Sea Level Rise, Landslides and Debris Flow, 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 (HMP). The previous HMP was not incorporated into any formal planning mechanisms for the Port of San Luis Harbor District (District) due to a lack of opportunity. The District plans to incorporate this update when the opportunity arises. A review of jurisdictional priorities found no significant changes in priorities since the last update.

The Facilities Manager of the 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.

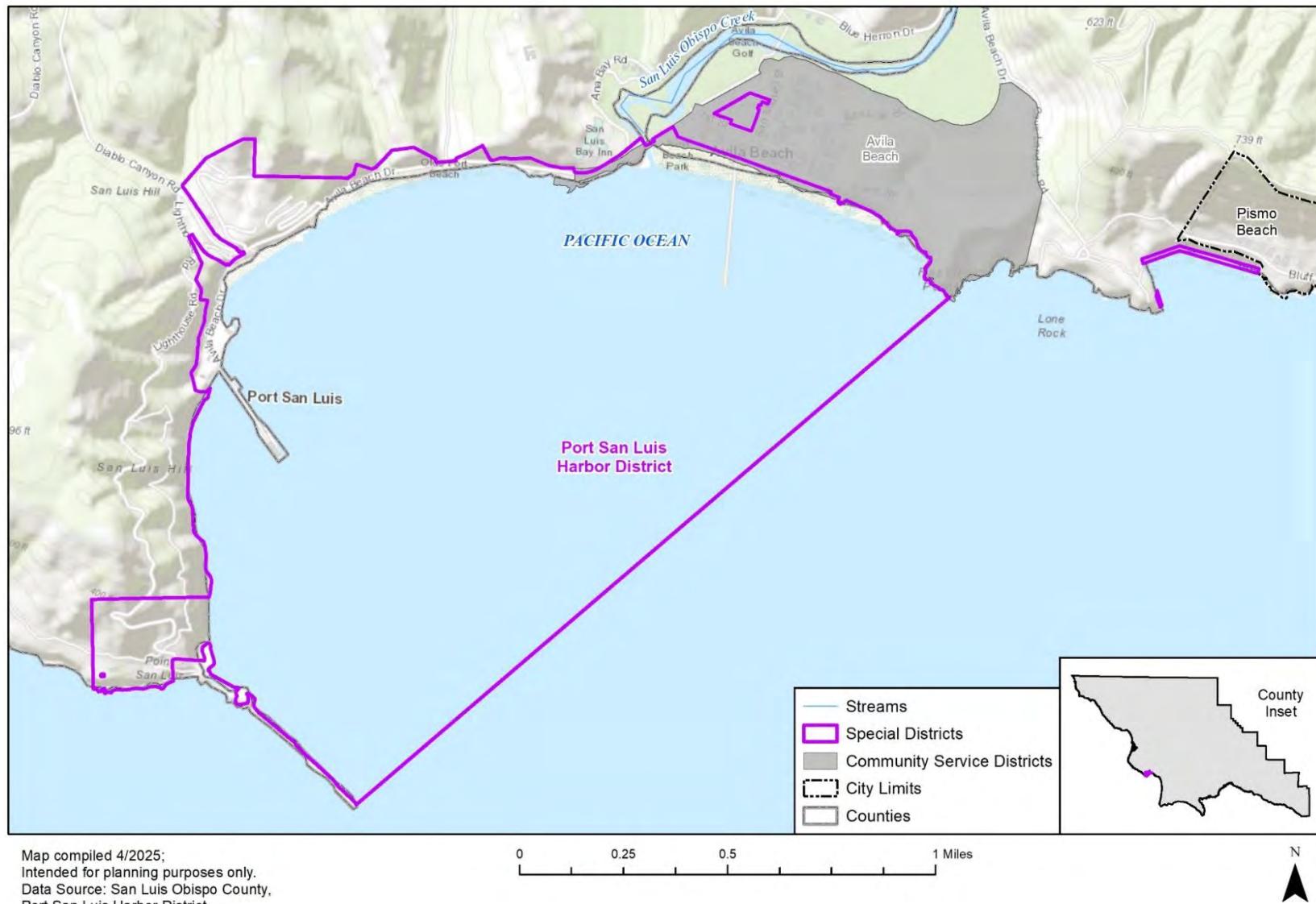
Table S-1 Port San Luis Harbor District Hazard Mitigation Plan Planning Team

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


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.

Because of these aforementioned factors, the district's net vulnerability for all hazards identified in Section S.2 has not increased or decreased due to changes in development, as there have been no changes in development since the previous plan was approved. The district serves only as a location for research, environmental conservation, and outdoor recreation, with the necessary facilities to serve those uses discussed above and in Section S.3.2. There is no permanent population residing in the district, and the district is only zoned for public facilities, prohibiting any past, present, or future residential land uses without future changes in zoning. Future development will be limited to infrastructure improvements and replacement of existing facilities, rather than new growth and development that may be more typical of the municipalities in the County.

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/Lightning/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
Coastal Storm/Coastal Erosion/Sea Level Rise	Significant	Highly Likely	Limited	High
Earthquake	Extensive	Likely	Critical	Medium
Flood	Limited	Highly Likely	Limited	Medium
Landslide and Debris Flows	Significant	Highly Likely	Critical	Medium
Tsunami	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	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			
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.				

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 to no risk or insignificant anticipated impacts and are not considered further for vulnerability assessment or mitigation actions:

- Adverse weather: Freeze and Hail
- Agricultural Pests and Plant Disease
- Biological Agents
- Dam Incidents
- Drought and Water Shortage
- 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 Section S.7 of this annex also provides details on many other assets and facilities that the district deems important to their operations, such as

restroom facilities, various shops and restaurants, roads, and port office facilities. Some of the following are notable critical facilities due to their value, both in dollar amount and their role in supporting the overall function of the district:

- Avila Pier
- Harford Pier
- Lighthouse and Associated 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

Avila Beach Drive is the only way in and out of the Port District and Avila Beach by automobile. If Avila Beach Drive becomes 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 as well, 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.

There are no permanent residents of the Harbor District, however it is a popular destination for tourism and outdoor recreation that frequently sees daytime and overnight visitors. Official estimates on the number of annual visitors to the district are not readily available. Additionally, the district employs about 25 full-time employees and frequently sees researchers at the Cal Poly Center for Coastal Marine Sciences, which operates a pier hosting a research and educational facility. When discussing vulnerabilities of populations throughout section S.3.3. All of these population groups are considered potentially at risk.

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

Adverse weather involves thunderstorms, heavy rain, lightning, and dense fog. In the District, these hazards have been known to occur given the District's location on the coast and the typical climatic and weather variability present with seasonable changes, tides, and ocean currents. Adverse weather hazards pose a **medium** significance hazard, per the District's local planning team. The District sees an average precipitation of 22 inches annually, with most of this occurring as rainfall in the winter months. The District has experienced lightning storms in the past, which create a potential fire hazard for the two wooden piers within San Luis Bay. Additionally, lightning strikes themselves present a direct risk to people near or on open water. Since the harbor district is a popular destination for RVing, boating, and outdoor and water recreation, people visiting the district have fewer options for shelter and are at an increased exposure to the elements, which could place them at a higher risk of injury during a storm than people in a home or other solid structure. Dense fog, which is a common element of shorelines and harbors on the California Coast 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 collisions on the water, damaging not only boats but potentially resulting in damage to harbor structures, piers and facilities, and death or injuries to people involved.

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 (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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 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

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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 32°F MEAN # DAYS
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. \geq 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 gave an overall significance rating for high wind and tornadoes of **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 to facilities on land, such as downed tree limbs and power lines. The presence of RVs for camping and recreation in the district may also be more vulnerable to wind damage in extreme events, also presenting a risk to the inhabitants of those RVs. Wind driven high surf may also result in damage to piers, docks, and other harbor infrastructure during storms, directly damaging or accelerating the wear and tear on these facilities and further posing risks to individuals utilizing them. Additionally, disruption of utilities can affect safe navigation within the district. Hazard awareness is important to minimize impacts to District staff. 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 does not generally directly damage structures, but it can pose a threat to the district's infrastructure, as high temperatures can accelerate the deterioration of materials like asphalt and metal. Additionally, one of the primary impacts of extreme heat on infrastructure is the overloading of electrical systems that power the District's lights, pumps, and other equipment. These issues could lead to more frequent maintenance needs or temporary service

disruptions. Of greater concern is the risk that extreme heat poses to people, placing the health and safety of district employees, researchers, and recreationists at risk. 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. Similarly, visitors to the district, the overwhelming majority of whom are there to partake in outdoor recreation, could be unaware of their health risk from boating, hiking, swimming, or other forms of physical activity during high temperatures.

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 tourism traffic. Public use areas like beaches, campgrounds, 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. Wildfire near the harbor could threaten evacuation routes, harm air quality, and pose serious safety hazards.

S.3.3.4 Coastal Storm/Coastal Erosion/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, creating dangerous conditions for pedestrians and employees. Flooded roads can also isolate visitors and employees, as well as limit emergency access and evacuation routes.

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.

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.

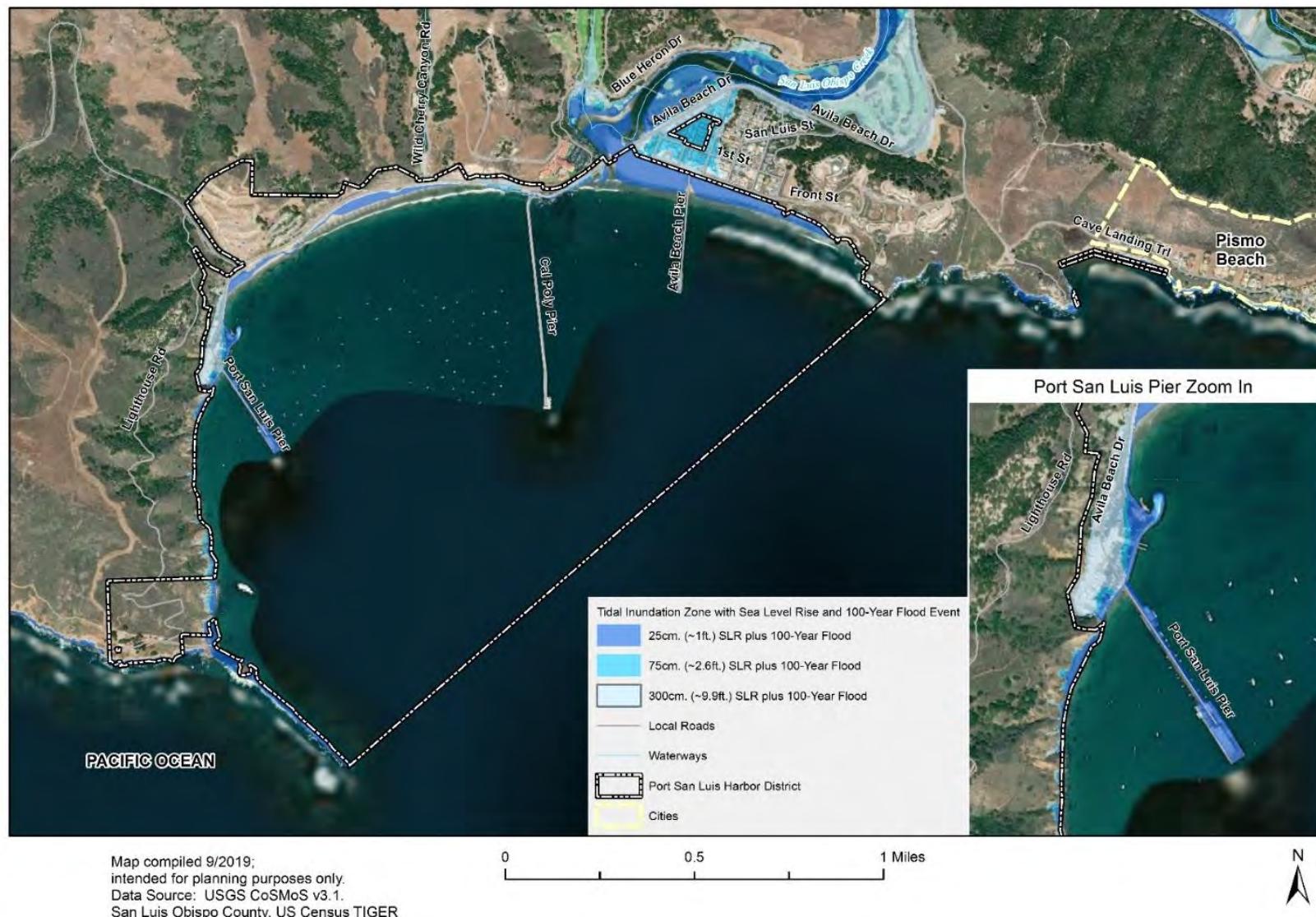
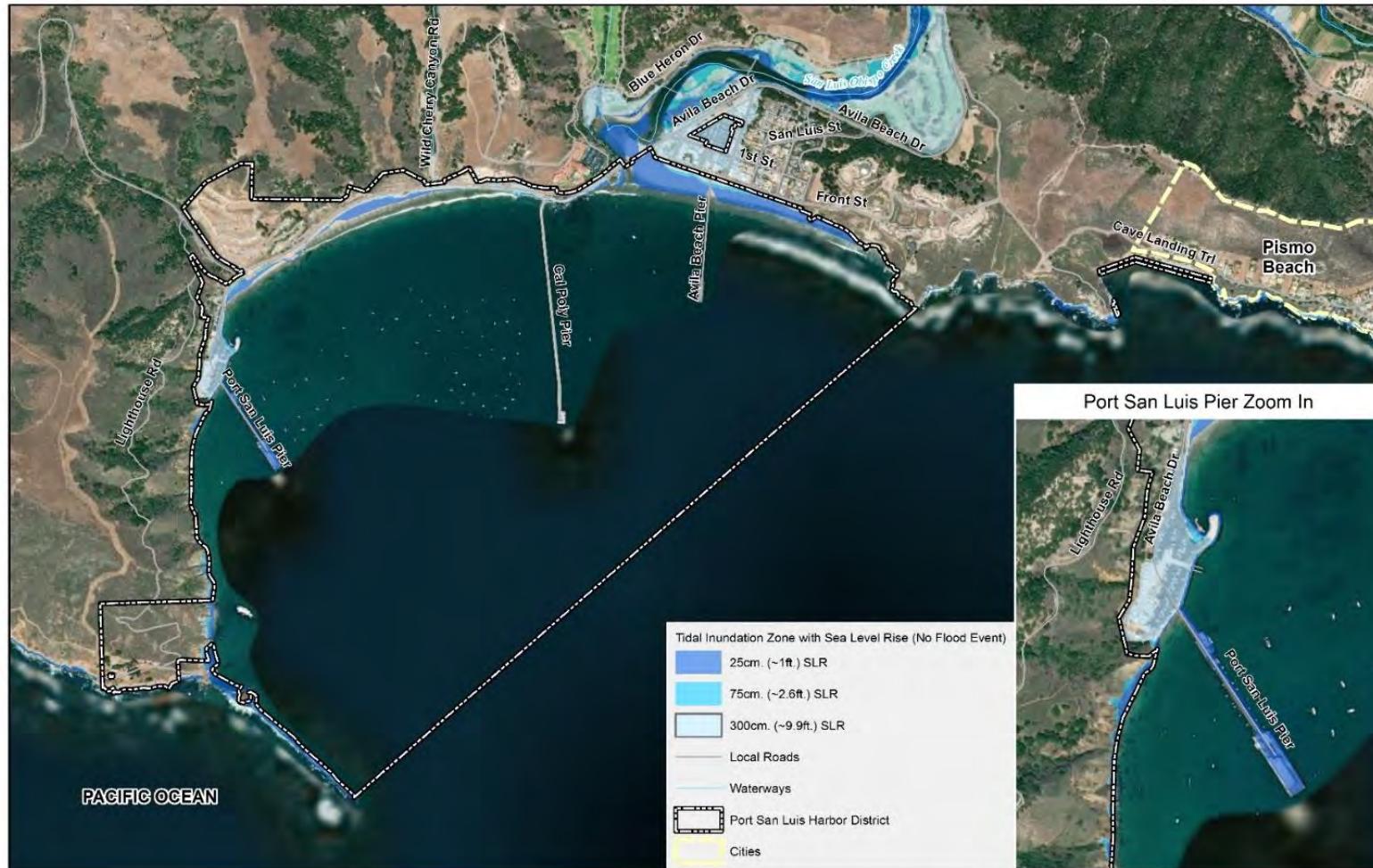
Figure S-2 Port San Luis Harbor District Sea Level Rise Scenario Analysis: Tidal Inundation Only


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

0 0.5 1 Miles



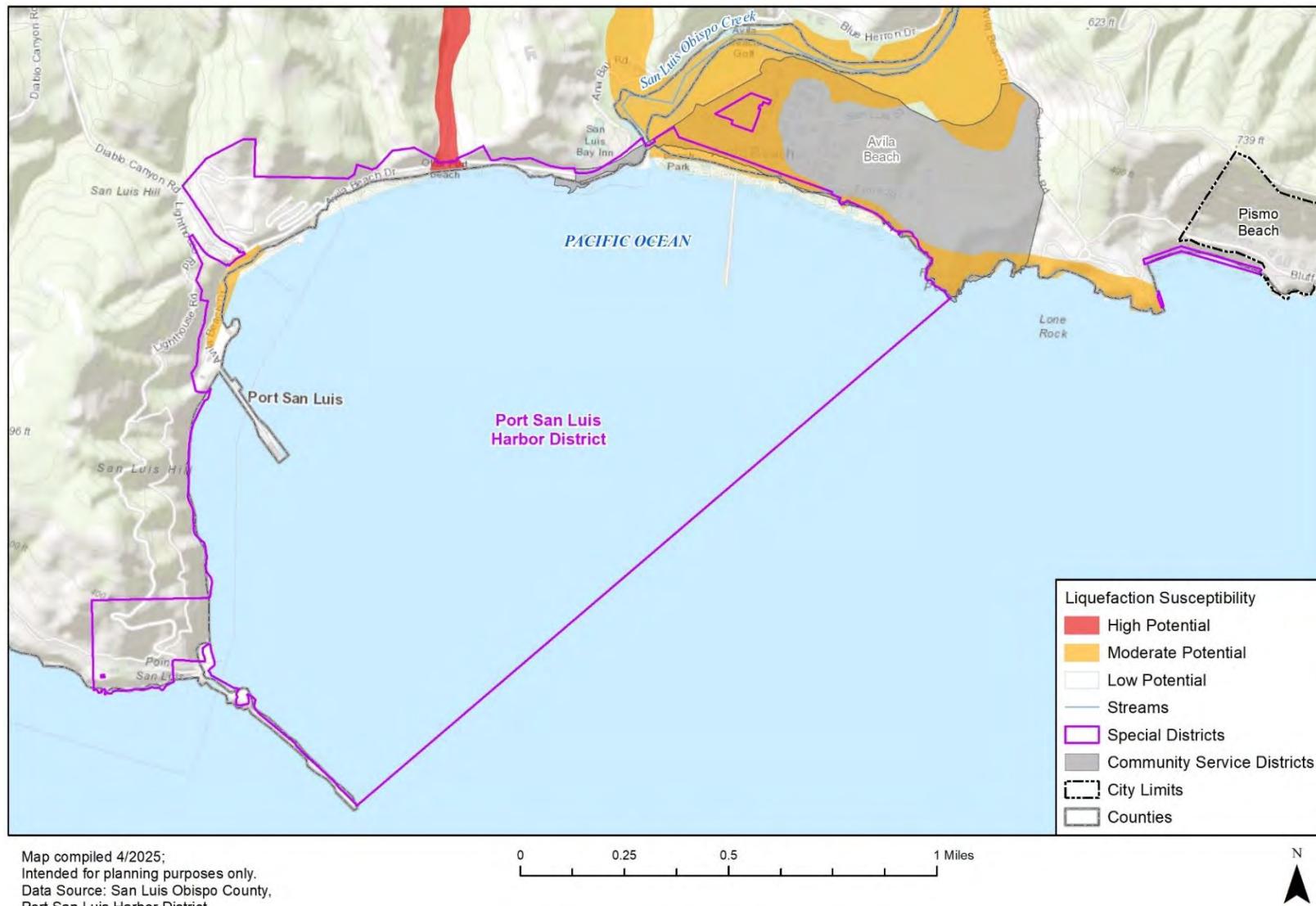
S.3.3.5 *Earthquake*

Earthquake is a **medium** significance hazard for the Port San Luis Harbor District. Section 5.3.10.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide. The vulnerability of the people, property, and facilities of the Port San Luis Harbor District do not differ significantly from that of the county, and the district is broadly susceptible to the same types of direct and indirect effects of earthquakes which are discussed in the base plan.

There are two fault lines that run directly through the northern and northeastern portions of the District, part of the South Margin section of the San Luis Range system, which could be the source of ground movement. An earthquake impacting San Luis Obispo County could result in damage to the buildings and piers of the district, and could also result in liquefaction, slumping, or lateral spread along Avila Beach Drive, cutting the district off from access for evacuation and emergency services. This lack of access potentially presents the greatest risk to the health and safety of workers and visitors in the District, as they may become stranded for hours or multiple days in the event of a large earthquake. Visitors also are more likely to be unfamiliar with the area and how to evacuate in an emergency.

As much of the district's infrastructure is located along the coast or in the water, there is also a risk of tsunami damage from earthquakes offshore (refer to the Tsunami 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. Direct damage to Diablo Canyon is not the only concern, as the main point of access to the power plant stems from Avila Beach Drive. As mentioned above, even a smaller earthquake which incapacitates Avila Beach Drive would also further impair access to Diablo Canyon.

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


S.3.3.6 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. Floods can create dangerous conditions for pedestrians and employees. Flooded roads can also isolate visitors and employees, as well as limit emergency access and evacuation routes.

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.

The greatest vulnerability of the district to riverine flooding is washouts or inundation of roadways, which would cut off access to the district. 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. Floodwater 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.

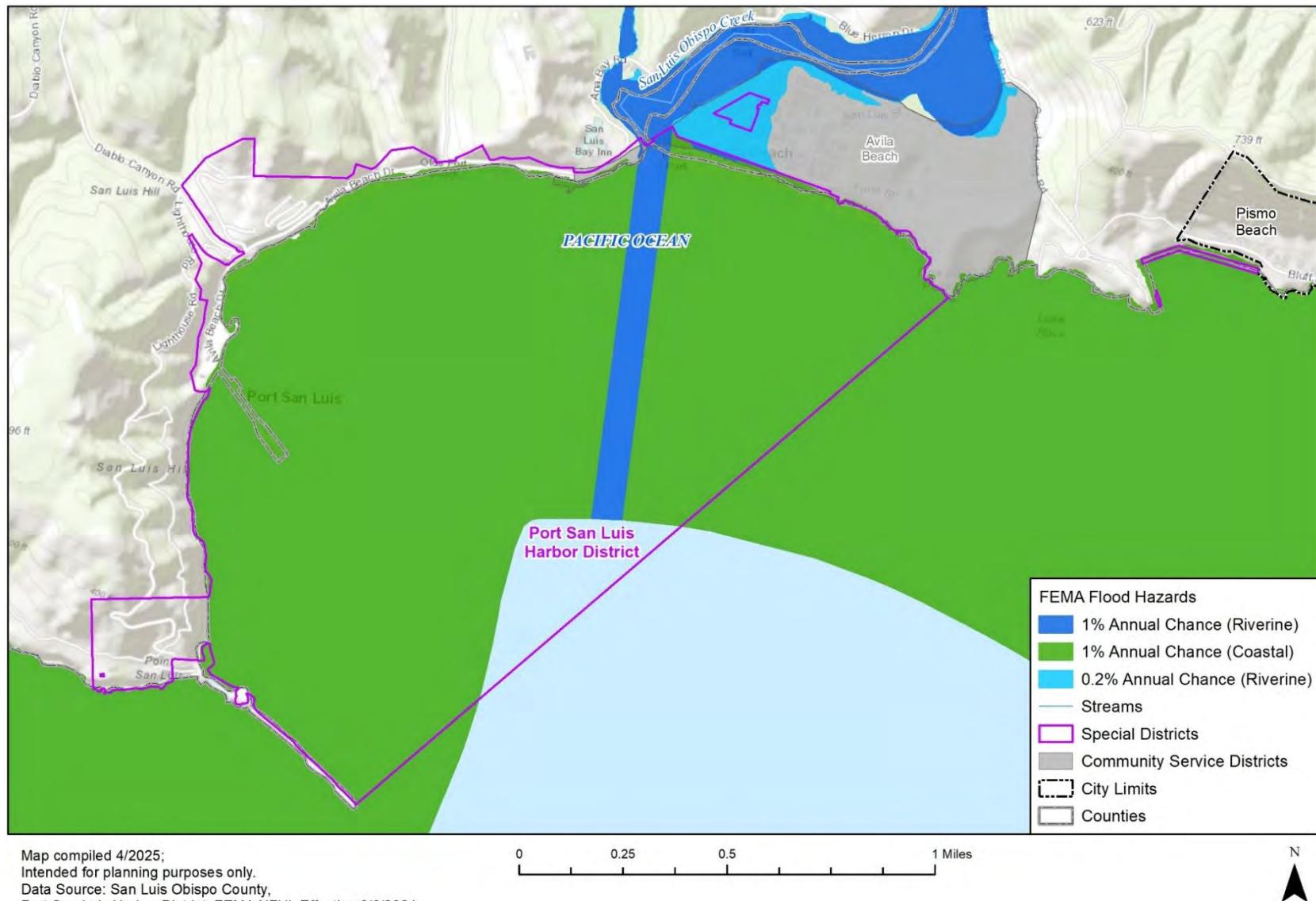
Values at Risk

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/ Sea Level Rise section of this annex.

The Harbor District is not eligible to participate independently 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 riverine flood hazard areas. For additional general discussion of riverine flood hazards affecting the surrounding region please refer to Section 5.3.11.7 of the Base Plan and Annex H Avila Beach.

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


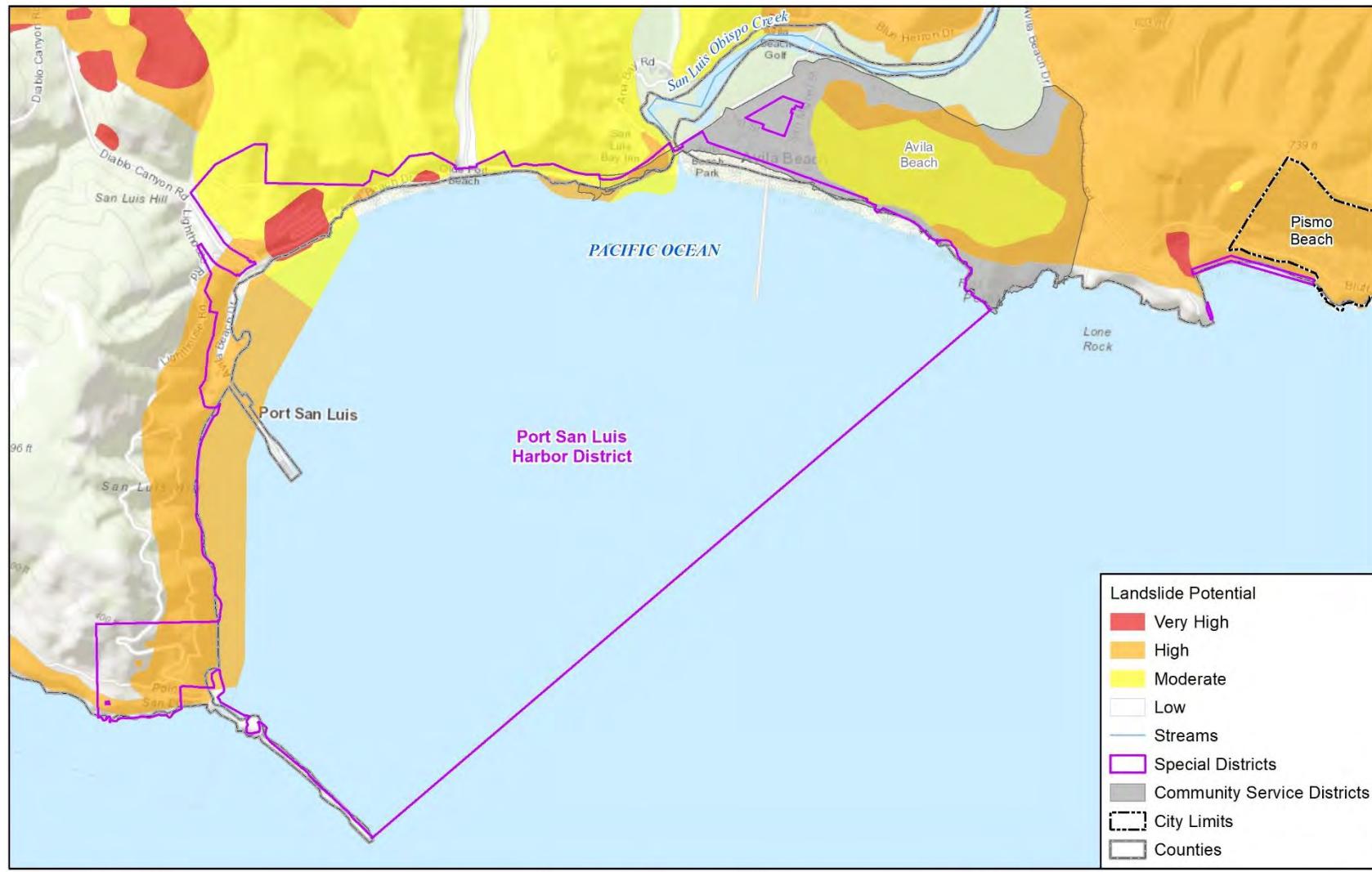
S.3.3.7 Landslides and Debris Flow

Overall, landslide and debris flow hazards have been ranked by the local planning team as holding **medium** 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, essentially the entire area of the Harbor District has potential for landslides. Much of the land area of the district consists of a relatively narrow strip of coastal land pinned between steep hillsides and the ocean, creating a prime location for landslides. A landslide event along Avila Beach Drive, which is the only major road into or out of the Town of Avila Beach and the harbor district, could have serious impacts on visitors and staff, 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 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 is not designed to handle hundreds of vehicles over an extended period of time that would be necessary to clean debris from the roadway caused by a landslide or debris flow event.

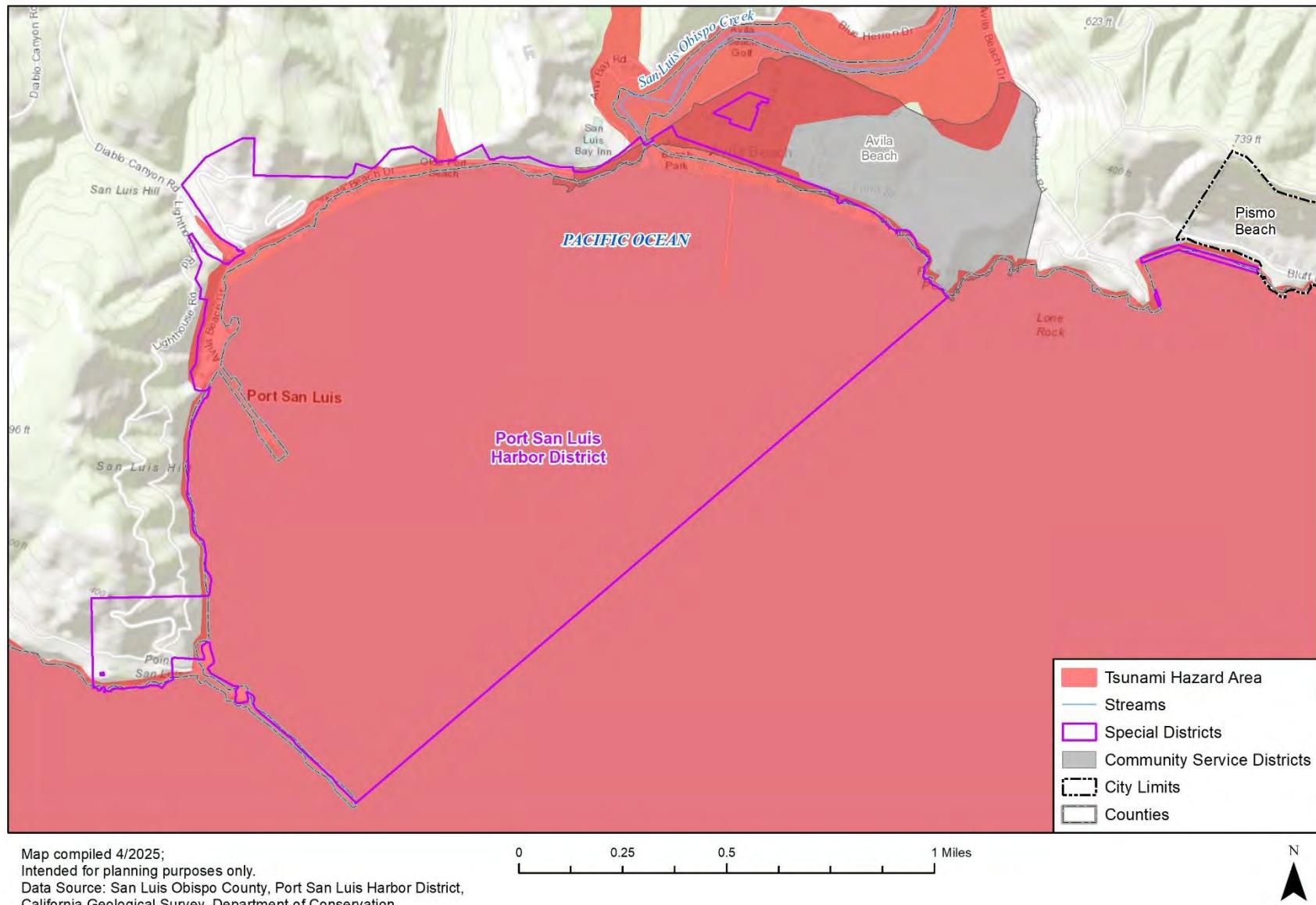
This past event helps to illustrate the scale of possible future events and their impacts. Obviously, a landslide could directly damage the few critical facilities and lodging located within the district, however the extent of damage would depend on the size and location along the coast of the slope failure. The potentially greater impact would be to people working and recreating in the district, who may become stranded if a landslide cuts off Avila Beach Drive.

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


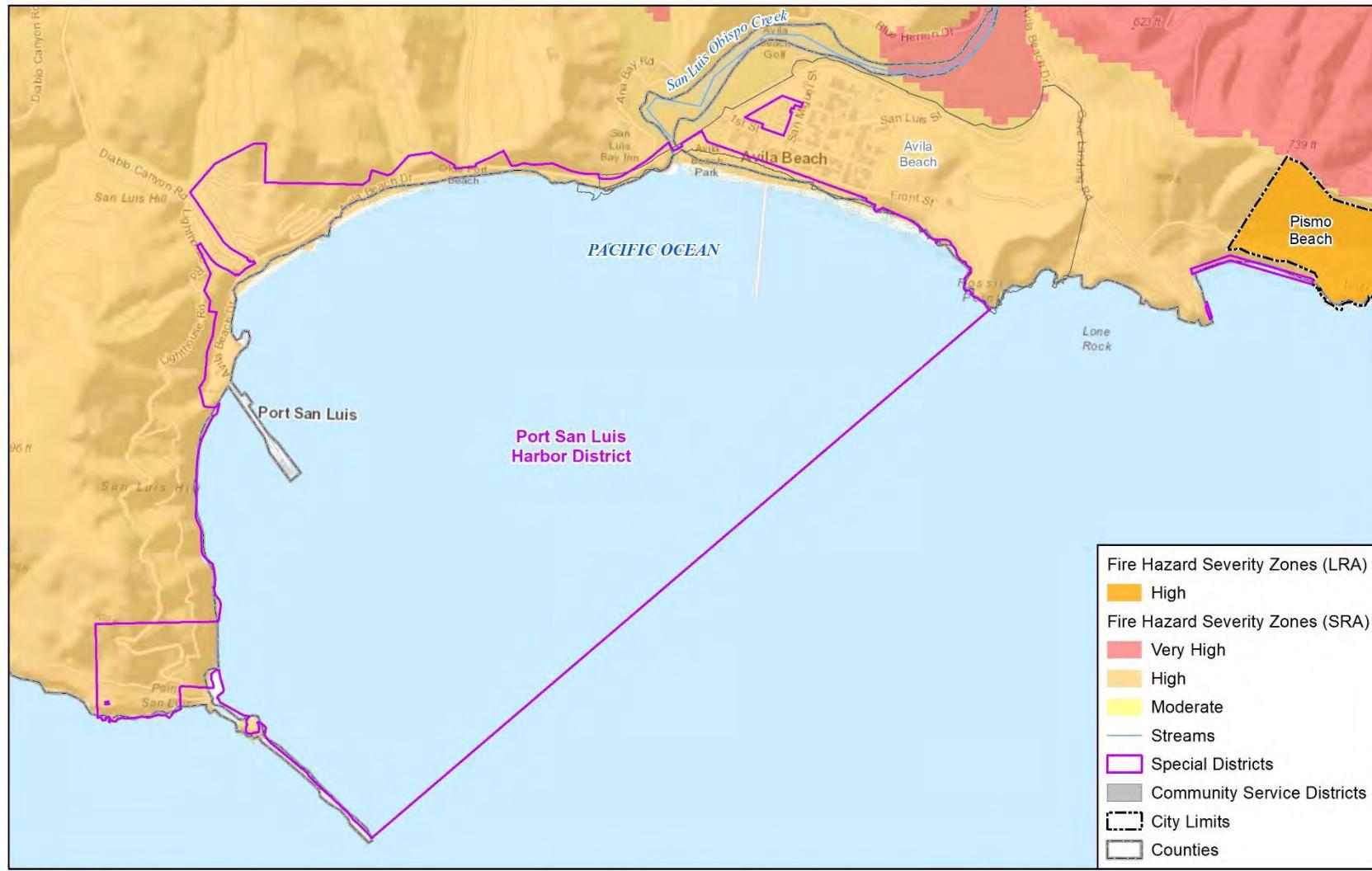
S.3.3.8 *Tsunami*

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. All of the District's infrastructure is located within the Tsunami inundation zone and could be destroyed or damaged. District staff could be harmed and affected by limited egress options by vehicle, as watercraft would not be an available option for evacuation and emergency service access. Refer to Section 5.3.14 of the Base Plan for more information related to the past tsunami events and details on vulnerability of people, property, facilities, and other assets to this hazard countywide.

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


S.3.3.9 Wildfire

The overall significance rating for wildfire is **medium** 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). All of the District's infrastructure is located within the High Fire Hazard Severity Zone and could be destroyed or damaged by wildfire. District staff could be affected by limited egress by vehicle for evacuations and emergency service access if watercraft is not an available option. 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

0 0.25 0.5 1 Miles

N

S.3.3.10 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 land 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

FINANCIAL RESOURCES	ACCESSIBLE/ELIGIBLE TO USE (YES/NO)
Withhold spending in hazard prone areas	No

S.4.4 National Flood Insurance Program

As a special district, the Port San Luis Harbor District is not eligible to participate in the National Flood Insurance Program (NFIP) and has minimal mapped special flood hazard areas. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

S.4.5 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 conservation and responsible use. The Districts also jointly share the operation and maintenance costs of the Wastewater Treatment Plant.

S.4.6 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	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. Timeline and project cost definitions are noted in Section 7.3.2 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. Note that reference to Thunderstorm in the 'Primary Hazard(s) Mitigated' column includes the subhazards Thunderstorm/ Heavy Rain/Lightning/Dense Fog for the sake of brevity.

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, Adverse Weather: High Wind/ Tornado, Coastal Storm/Coastal Erosion/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, Adverse Weather: High Wind/ Tornado, Coastal Storm/Coastal Erosion/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; San Luis Obispo Council of Govts.; General Fund	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 industry; did not proceed with full

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
							BRIC applications. Project on hold until funding can be identified.
PS.3	Coastal Storm/Coastal Erosion/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 Public Works ; Port San Luis Harbor District Facilities; Avila Beach CSD	Over \$1,000,000. County of SLO CIP; San Luis Obispo Council of Govts.; General Fund	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/Coastal Erosion/Sea Level Rise; 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 Public Works ; Port San Luis Harbor District Facilities; Avila Beach CSD; Avila Beach property owners	\$500,000 to \$1,000,000. SLO County CIP; property owners; FEMA HMA	Medium	More than 5 yrs.	Not Started - flooded areas are within County's jurisdictional right of way in town of Avila Beach
PS.5	Coastal Storm/Coastal Erosion/ 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 Recreation Division of Boating and Waterways grants	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

MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
							January 2025. Estimated completion 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, General Fund	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 and Debris Flow, Earthquake	Reinforce and maintain revetment below and hillside above Avila Beach Drive to prevent road failures and closures due to earthquakes and landslides/debris flow	County of SLO Public Works , Port San Luis Harbor District Business	Over \$1,000,000. County of SLO CIP; San Luis Obispo Council of Govts.; General Fund	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, General Fund	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, General Fund	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	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. General Fund	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	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, General Fund	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, General Fund	Low	Annually	In Progress.
PS.13	Adverse Weather: High Wind/Tornado; Adverse Weather: Extreme Heat	Assess the historic canopy at the end of the Harford Pier for reinforcement and repair options and to provide shade protection for staff and visitors.	Port San Luis Harbor District Facilities	Little to No Cost; Staff Time, General Fund	Low	2-5 years	Not Started. 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. 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 Port San Luis Harbor District will use the mitigation actions described in this plan to inform and align with the update of Port Master Plan to ensure future projects within that document consider hazard mitigation and resilience. 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 within the boundaries of the Port San Luis Harbor District and surrounding areas.

As noted in Chapter 8 Implementation and Monitoring, the County's HMPC representatives 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

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

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



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, or District) was established in 1945. The FCWCD operates as a division of San Luis Obispo County Public Works Department and provides a range of services focused on managing water resources; planning, designing, constructing, operating, and maintaining drainage and flood control facilities; 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. The 2019 MJHMP was referenced when applying for the Federal Emergency Management Agency's (FEMA's) Building Resilient Infrastructure and Communities (BRIC) and Pre-Disaster Mitigation (PDM) grants, as well as FEMA Public Assistance in addressing storm damages. However, it was not incorporated into any formal planning mechanisms due to lack of opportunity. The District intends to incorporate this update when the opportunity arises.

The two Deputy Directors of County Public Works represented the District on the County Hazard Mitigation Planning Committee (HMP) and took the lead for developing 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	South San Luis Obispo Chamber of Commerce	Chief Executive Officer
Representatives supporting underserved communities	El Camino Homeless Organization	Shelter Manager
	Community Action Partnership of SLO	Chief Operating Officer
	5Cities Homeless Coalition	Executive Director

The FCWCD LPT actively participated in the public outreach by informing constituents through coordinated social media campaigns (forwarding County announcements), stakeholder emails, and sharing County website postings. The District also encouraged community involvement by promoting the online survey, participating in stakeholder and public workshops, and sharing opportunities to review and comment on the draft plan.

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 zone 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.

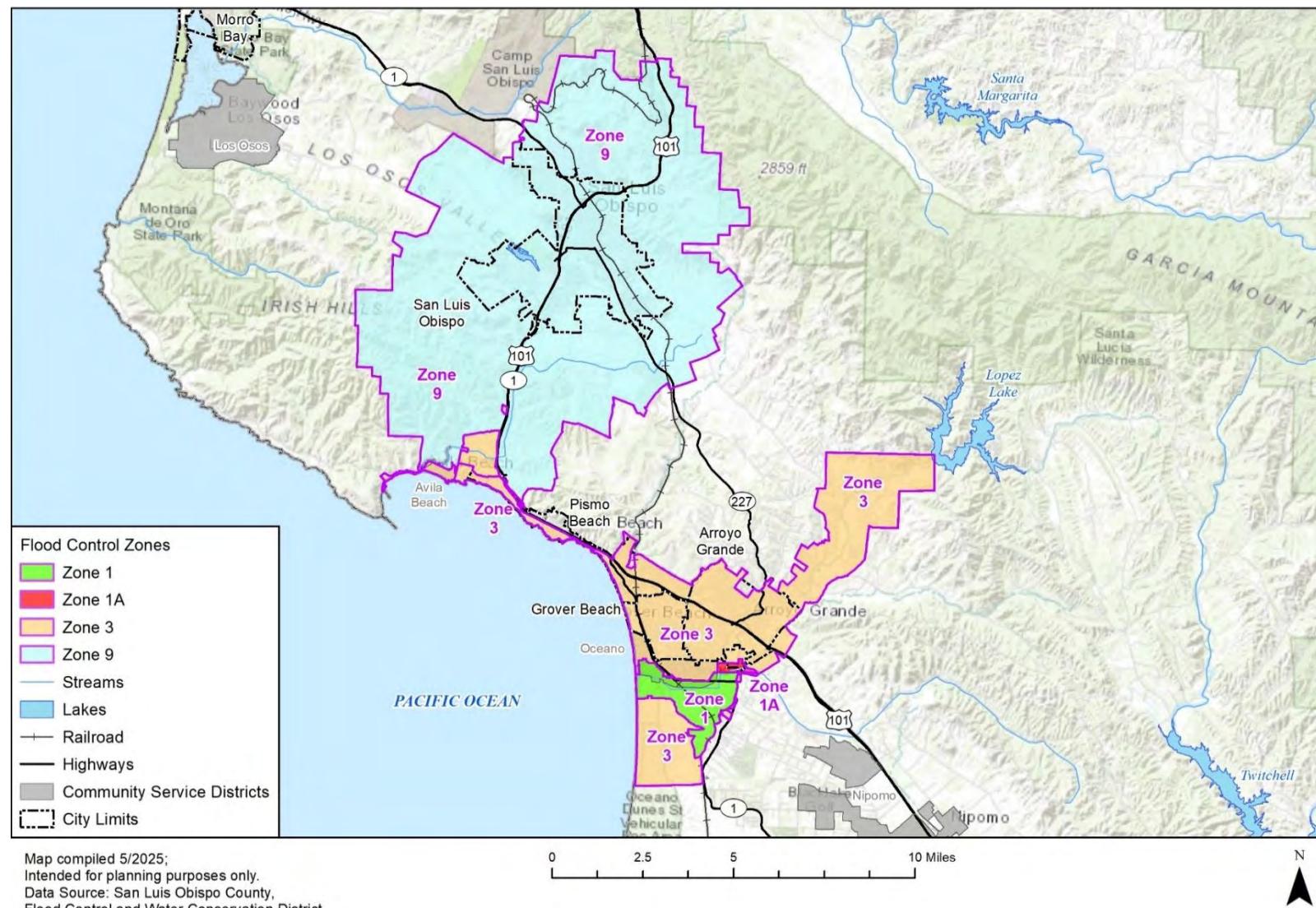
Zone 9 - San Luis Obispo Creek: Zone 9 includes the San Luis Obispo Creek and its tributaries, which are prone to flooding and erosion. To manage these issues, the District provides flood control services and developed the San Luis Obispo Waterway Management Plan in 2003. This plan consists of three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





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. As shown, there has been no significant population growth from 2018 to 2023, while the median age increased slightly and the percentage of residents over 65 increased. The total housing units also increased with an 8.6% increase in larger multi-family housing units. 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, development in the County has remained primarily residential, with modest growth in total housing units. New housing projects face stricter requirements to support hazard mitigation, such as low impact development standards. While the specific impacts of flooding and drought vary by location, these hazards remain key concerns for all new development. Looking ahead, while the population has remained stable, an aging demographic and increased development near creeks and waterways may increase vulnerability to climate-related hazards, such as flooding. The FCWCD's primary concerns include the exposure and vulnerability of its infrastructure, which is critical for drainage and flood control and water conservation, as well as the overall health and availability of the County's water supply. Water supply reliability will continue to be a significant issue, especially in groundwater-stressed areas and during drought conditions.

Besides flooding and drought hazards, the FCWCD's net vulnerability has not increased or decreased due to changes in the residential development since the previous plan was approved for all hazards identified in Section T.3.3. 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: Thunderstorm/Heavy Rain	Significant	Likely	Negligible	Medium
Coastal Storms/Coastal Erosion/Sea Level Rise	Limited	Likely	Negligible	Medium
LowDam 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 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		



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: Hail/Lightning/Dense Fog/Freeze
- Adverse Weather: High Wind and Tornado
- Adverse Weather: Extreme Heat
- Agricultural Pest Infestation and Disease
- Biological Agents (naturally occurring)

The FCWCD focuses primarily on the management and protection of drainage and flood control infrastructure, stormwater systems, water conservation facilities, and regional water supply. Given this infrastructure, the above-listed hazards are not expected to directly impact the District's operations. Hail events are not expected to affect large-scale flood control infrastructure (culverts, recharge basins), lightning would have a negligible impact on flood control facilities, dense fog presents visibility and transportation hazards, but is not expected to have hydrologic or structural consequences, and freeze events are not expected to impact the design and materials of water infrastructure. Additionally, high wind and extreme heat events do not typically threaten flood control facilities.

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

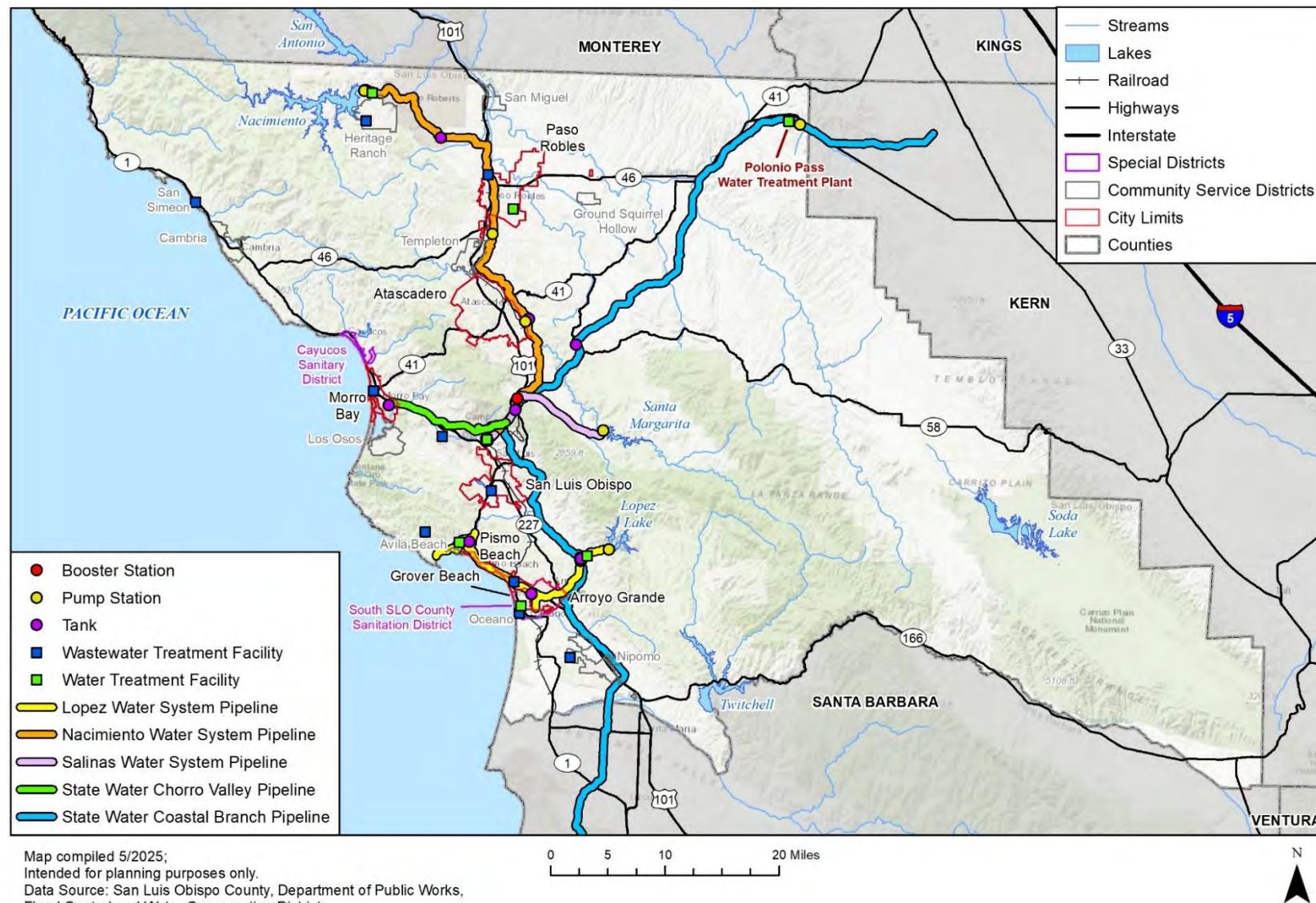
A critical facility is defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. The four types of Critical Facilities categorized by the San Luis Obispo County HMPC are emergency services, high potential loss facilities, 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

This section details vulnerability to specific hazards of medium or high significance based on quantifiable data, Planning Team input, or where the vulnerability notably differs from that of the County. Past hazard events and current vulnerabilities are discussed below. Refer to Section 5 of the Base Plan for more details on the County's HIRA findings and hazard profiles.

As previously mentioned, the FCWCD covers the entirety of San Luis Obispo County and operates as a division of San Luis Obispo County Public Works. When discussing vulnerabilities of populations throughout section T.3.3., this refers to the entire population of San Luis Obispo as described throughout Section 4.3.1, 5.2.3, and 5.3 of the Base Plan, including employees of the FCWCD. There are approximately 155 employees working on behalf of the FCWCD for the San Luis Obispo County Public Works Department, who are considered potentially at risk to the hazard profiles below, specifically in instances where they may be conducting infrastructure repairs following a hazard event.

T.3.3.1 Adverse Weather: Heavy Rain

Adverse weather concerns for the FCWCD involve heavy rain, in so far as its potential to trigger flooding in the county. Adverse weather hazards pose a **medium** significance hazard, per the District's LPT. Average annual rainfall varies across San Luis Obispo County, from approximately 15 to 22 inches per year depending on the location, however heavy rain events of up to 8.8 inches in a single day have been recorded in San Luis Obispo County. While the rain itself does not necessarily put people or FCWCD employees at risk, rainfall events are likely to trigger flooding which in turn can pose a risk to anyone living or working in San Luis Obispo County, as well as overwhelm district infrastructure and impair the FCWCD staff's ability to effectively and safely manage flood control concerns. The typical impacts to people, structures, and critical facilities/lifeline from this hazard are discussed in Section 5.3.2.7 of the base plan.

T.3.3.2 Coastal Storm/Coastal Erosion/Sea Level Rise

The San Luis Obispo County FCWCD manages critical water infrastructure along the county's low-lying coastal corridor, including the communities of Morro Bay, Pismo Beach, Grover Beach, and Oceano. This infrastructure, such as wastewater treatment facilities, storage tanks, and water system pipelines and conveyance systems, is increasingly vulnerable to coastal hazards, including coastal erosion, sea level rise, and storm-driven flooding and has a **medium** significance hazard for the FCWCD. As outlined in Section 5.3.4 of the Base Plan, climate change is expected to intensify these hazards, particularly in areas with limited coastal armoring or naturally low elevation.

While GIS analyses and the sea level rise assessment for the County do not indicate that FCWCD facilities are exposed to coastal hazards and sea level rise projections, the District's infrastructure is within a coastal area that could be at risk under future sea level rise scenarios combined with high tide or storm surge events. For example, wastewater facilities near estuarine areas, such as those in Morro Bay and Oceano, are especially susceptible to both gradual inundation and acute storm-related impacts. FCWCD staff may also be at risk to these hazards when operating, maintaining, or responding to facility issues. Inadequate elevation or



protection of pipelines and tanks in these estuarine areas could also result in service disruptions or environmental contamination. Continued vulnerability assessments and resilience planning are critical to ensure long-term service reliability and public safety across the District. Additional impacts to people, structures, and critical facilities/lifeline from coastal hazards are discussed in Section 5.3.2.7 of the base plan.

T.3.3.3 Dam Incidents

Dam incidents are a **medium** significance hazard for the FCWCD. The District owns the Lopez and Terminal dams, both rated as High Hazard (see Section 5.3.8 Dam Incidents in the base plan). 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. The typical impacts to people, structures, and critical facilities/lifeline are discussed in Section 5.3.8.7 of the base plan.

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 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 and staff involved in 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.3.3.5 Earthquake

Earthquake risk and impacts are discussed in more detail in Section 5.3.10 of the Base Plan and is ranked as **high** significance hazard by the District.

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 and its staff 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	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	-
Low	Unincorporated	Tank	Camp Roberts Tank



LIQUEFACTION SUSCEPTIBILITY	JURISDICTION	FACILITY TYPE	NAME
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

T.3.3.6 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

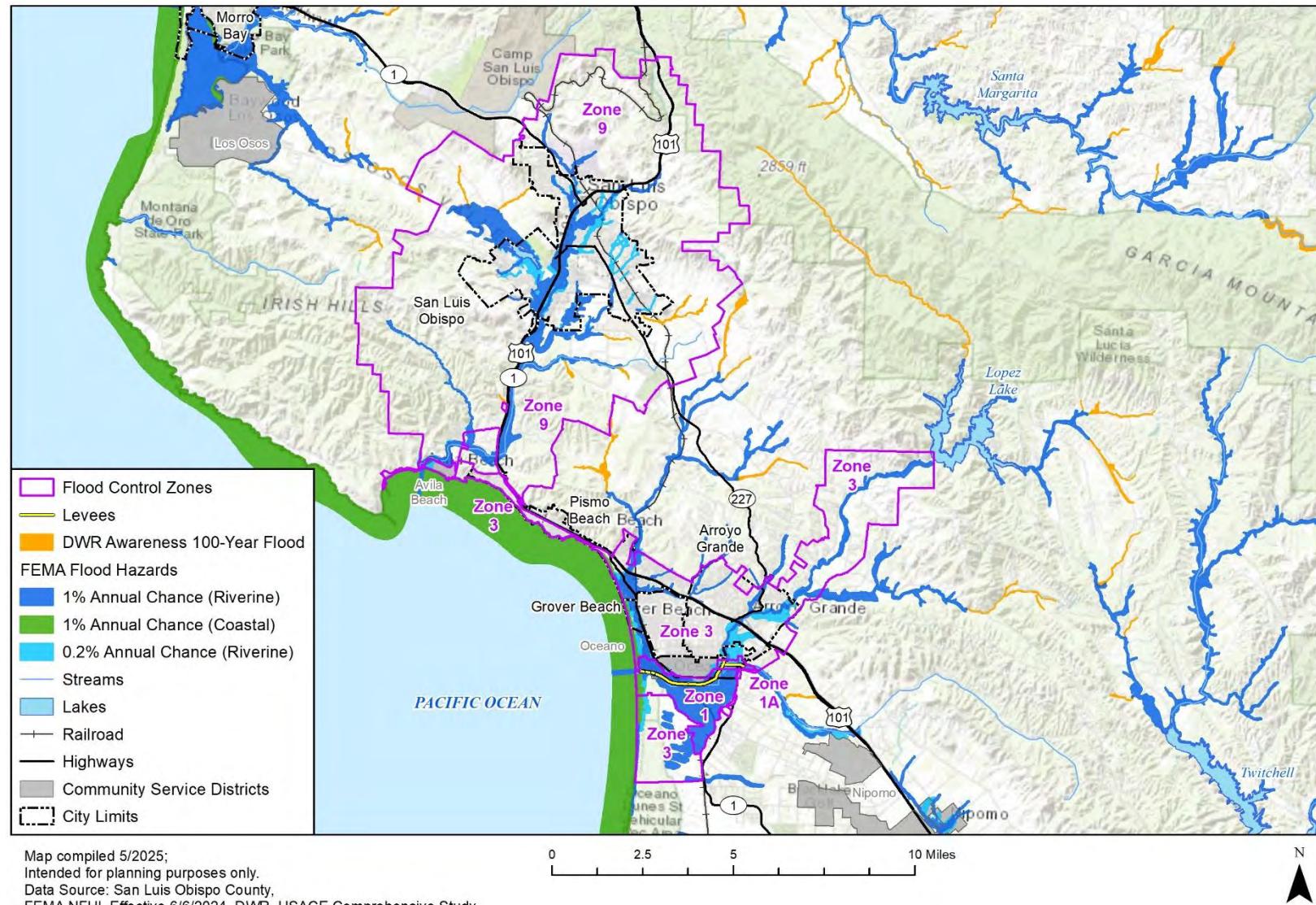
LIFELINE	FACILITY TYPE	NAME	FEMA FLOOD
Water Systems	Pump Station	--	1% Annual Chance
Water Systems	Pump Station	Intake Structure and Pump Station	1% Annual Chance
Water Systems	Pump Station	Rocky Canyon Pump Station	1% Annual Chance

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

A discussion and analysis of general property losses and public safety hazards associated with flooding is noted in Section 5.3.11.7 in the Base Plan. There are not unique vulnerabilities for district staff. There are no repetitive loss or severe repetitive loss properties, as defined by the NFIP, specific to the District; repetitive losses countywide and tracked to the appropriate municipality level are noted in Section 5.3.11.7 in the Base Plan.



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





T.3.3.7 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. Staff impacts are not anticipated to be significant.

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	-
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	-



LANDSLIDE	FACILITY TYPE	NAME
Low	Tank	Tank No. 2

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

T.3.3.8 Subsidence

Subsidence was given a **low** overall significance rating from the District. Section 5.3.13.7 of the Base Plan includes an analysis of the vulnerability of people, property, facilities, and other assets to this hazard countywide. While subsidence does not typically affect people, it can result in foundation damage and damage to linear infrastructure. Although subsidence is not 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.3.3.9 Tsunami

Tsunami inundation poses a risk to all coastal communities in the County of San Luis Obispo. Offshore faults and related seismic activity could 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. An analysis of tsunami inundation layers with GIS did not reveal any exposure to District infrastructure. Direct impacts to staff are not considered to be significant. 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.3.3.10 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. Direct impacts to District staff are not considered to be significant, but evacuations have the potential to temporarily displace staff.

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	-



FHSZ	FACILITY TYPE	NAME
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	-
Non-Wildland	Tank	-

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

T.3.3.11 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	
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	



REGULATORY TOOL	YES/NO	COMMENTS
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	
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 Legislative 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 National Flood Insurance Program and Flood Risk Management

As a special district, San Luis Obispo Flood Control and Water Conservation District is not eligible to participate in the National Flood Insurance Program (NFIP) but falls under the purview of the County's participation. 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.

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.



T.4.6 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 conservation 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	
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.4.7 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.4.8 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.4.9 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	Flood Control and Water Conservation District	Completed. This study was completed in 2021.



2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
		is to where it is needed to mitigate water shortages and drought impacts		

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. Timeline and project cost definitions are noted in Section 7.3.2 of the Base Plan.

**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	Coastal Storm/Coastal Erosion/Sea Level Rise, 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 administration through SLO County Public Works	Little to no cost; Staff Time/General Fund	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: Heavy Rain; Coastal Storm/Coastal Erosion/Sea Level Rise; Flood; Landslide and Debris Flow; 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 administration through SLO County Public Works	Little to no cost; Staff Time/General Fund; 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	Adverse Weather: Heavy Rain; Coastal Storm/Coastal Erosion/Sea Level Rise, Flood; Landslide and Debris Flow; Subsidence	Continue to work cooperatively with the state and federal flood related agencies for funding improvements through grant and agency programs. 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. Additionally, a Legislative PDM 2024 application is pending for a project scoping activity that will evaluate	Flood Control and Water Conservation District administration through SLO County Public Works	Little to no cost; FEMA Hazard Mitigation Assistance Grant - HMGP/Staff Time/General Fund	High	Ongoing	Annual Implementation.



MITIGATION ACTION NUMBER	PRIMARY HAZARD(S) MITIGATED	DESCRIPTIONS/BACKGROUND/BENEFITS	LEAD AGENCY & PARTNERS	ESTIMATED COST & POTENTIAL FUNDING SOURCES	2025 PRIORITY	TIMELINE	STATUS/IMPLEMENTATION NOTES
		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.					
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 administration through SLO County Public Works , Division of Safety of Dams	High; District General Funds, FEMA-High Hazard Potential Dam grant program (HHPD)	High	Long-Term (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 administration through 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



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.6	Earthquake; Landslide and Debris Flow, Tsunami	Water Infrastructure Earthquake Hazard Assessment and Mitigation. Assess vulnerabilities and risks to critical infrastructure due to earthquake, tsunami and landslides/debris flow and identify mitigation measures. Implement mitigation measures to protect water infrastructure from earthquake, tsunami and landslide/debris flow damages.	Flood Control and Water Conservation District administration through 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,	Medium	Long-Term	New in 2025
FCWCD.7	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 administration through 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	Flood Control and Water Conservation District administration through SLO County Public Works , Local Water Agencies, agricultural, rural, and environmental	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



Mitigation Action Number	Primary Hazard(s) Mitigated	Descriptions/Background/Benefits	Lead Agency & Partners	Estimated Cost & Potential Funding Sources	2025 Priority	Timeline	Status/Implementation Notes
		water, water transfers, recycled water (including direct and indirect potable reuse) and conserved water. Assess alternative supply source risk and resilience to wildfire.	communities with water needs				



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 will 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. A review of jurisdictional priorities found no significant changes in priorities since the last update.

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

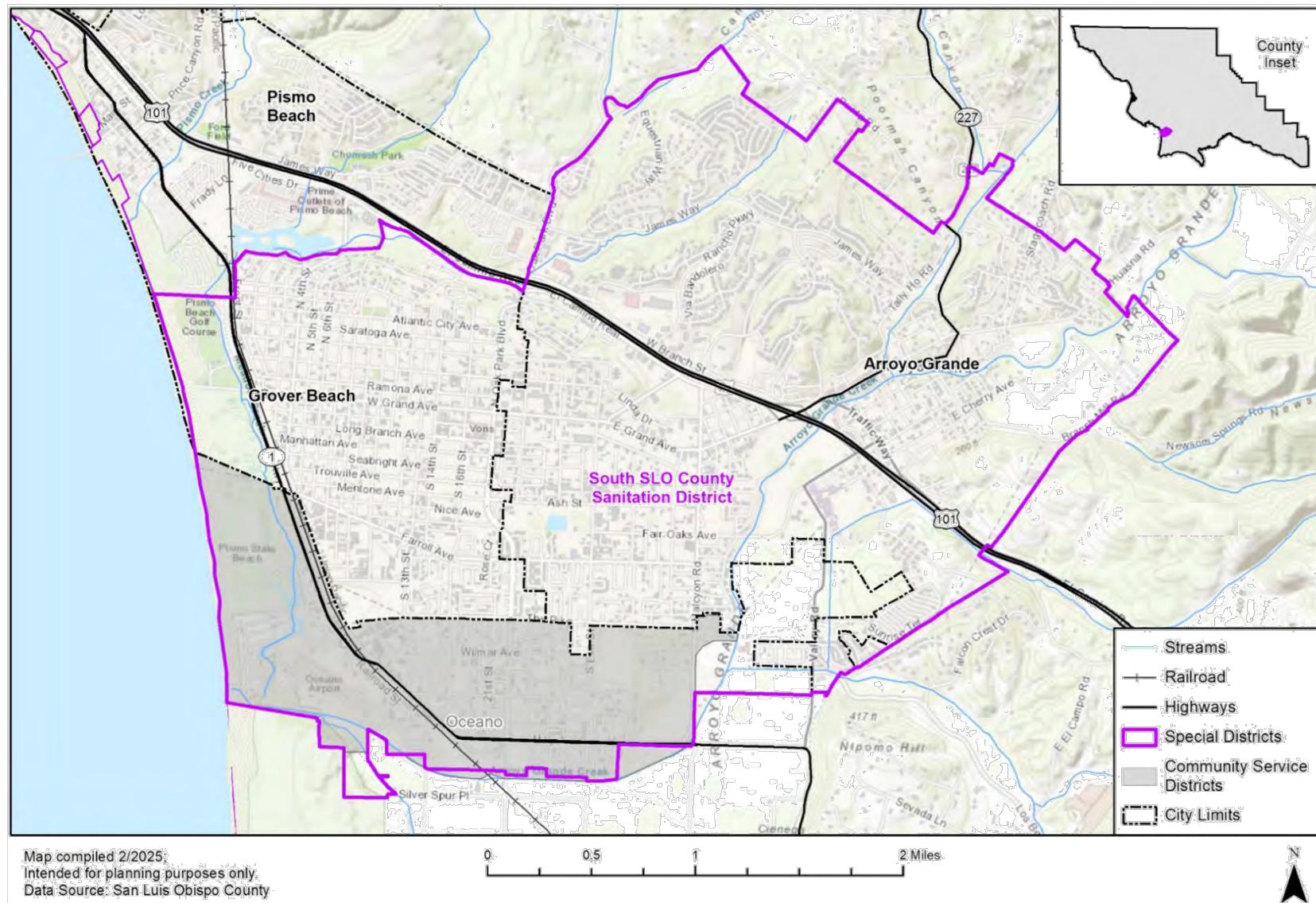


STAKEHOLDER GROUP	DEPARTMENT OR STAKEHOLDER	TITLE
Representatives of business, academia, and other private orgs	Oceano Community Services District Management	Management
	California Coastal Commission	
Representatives supporting underserved communities	5Cities Homeless Coalition	

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



CHARACTERISTIC	ARROYO GRANDE	GROVER BEACH	OCEANO CDP
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%
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, Hail	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



HAZARD	GEOGRAPHIC AREA	PROBABILITY OF FUTURE OCCURRENCE	MAGNITUDE/SEVERITY (EXTENT)	OVERALL SIGNIFICANCE
Dam Incidents and Failure	Extensive	Unlikely	Catastrophic	Medium
Drought and Water Shortage	Significant	Likely	Limited	Low
Earthquake	Significant	Occasional	Critical	High
Flood	Significant	Highly Likely	Limited	Medium
Tsunami	Limited	Occasional	Limited	Low
Wildfire	Significant	Occasional	Limited	Low
Geographic Area Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area	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.			
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.	 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 contained in the following sections.

U.3.1.1 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
- Freeze
- Fog
- Seiche
- Liquefaction

- 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 Storage
- Vehicles 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/Hail

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. The entire property and facility inventory of the South San Luis Obispo SD is exposed to the impacts of thunderstorm/heavy rain/lightning due to the widespread nature of these hazards.

Of primary concern for the district is its facilities, including Wastewater Treatment Plant and related core systems, and keeping them running adequately to serve the needs of the community. In adverse weather conditions it's possible for power outages, which could potentially take these facilities offline for a period of time and prevent the district from operating. Each of these facilities could also possibly be damaged by hail, lightning, or heavy rain events, which could trigger other damaging cascading hazards such as flooding or landslides. District employees may also be vulnerable to lightning strikes if working outdoors during adverse weather conditions. Hazard awareness is important to minimize impacts to District staff.

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. \geq 90°F MEAN # DAYS	MINIMUM TEMP. \leq 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 entire property and facility inventory of the South SLO SD is exposed to the impacts of high winds due to the widespread nature of these hazards. Particularly vulnerable pieces of infrastructure include the districts fencing and light poles, as well as operational and emergency equipment, which are more likely than the District's larger structures to be damaged by high winds. High wind could present a hazard, through blowing debris or falling trees, to district staff if working outdoors during adverse weather conditions. Hazard awareness is important to minimize impacts on District staff.

Of primary concern for the district is its facilities and keeping them running adequately to serve the needs of the community. In high wind conditions it's likely for downed trees and power lines, and subsequent power outages, which could potentially take these facilities offline for a period of time and prevent the district from operating. 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. Each of these consequences of extreme heat can negatively impact the district's facilities and infrastructure.

Public health and safety are also at greater risk during extreme heat events, impacting the entire population of the service area of South SLO SD. 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. These factors all could further reduce water quality in the area and place additional strain on the district's facilities, impacting its ability to function.



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

Overall, the LPT has rated coastal storm, erosion, and sea level rise hazards as holding **medium** significance for the District. 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.

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.

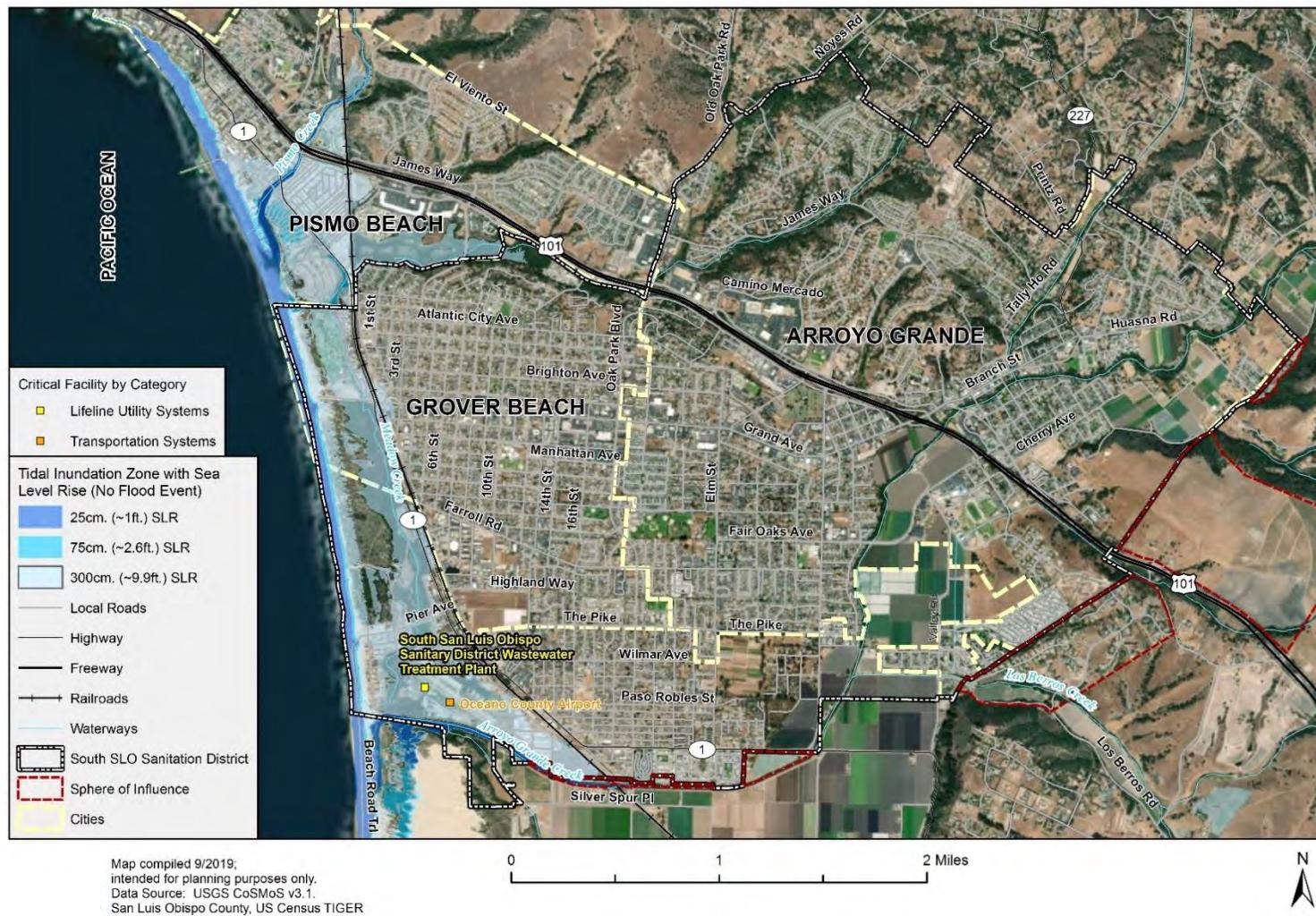


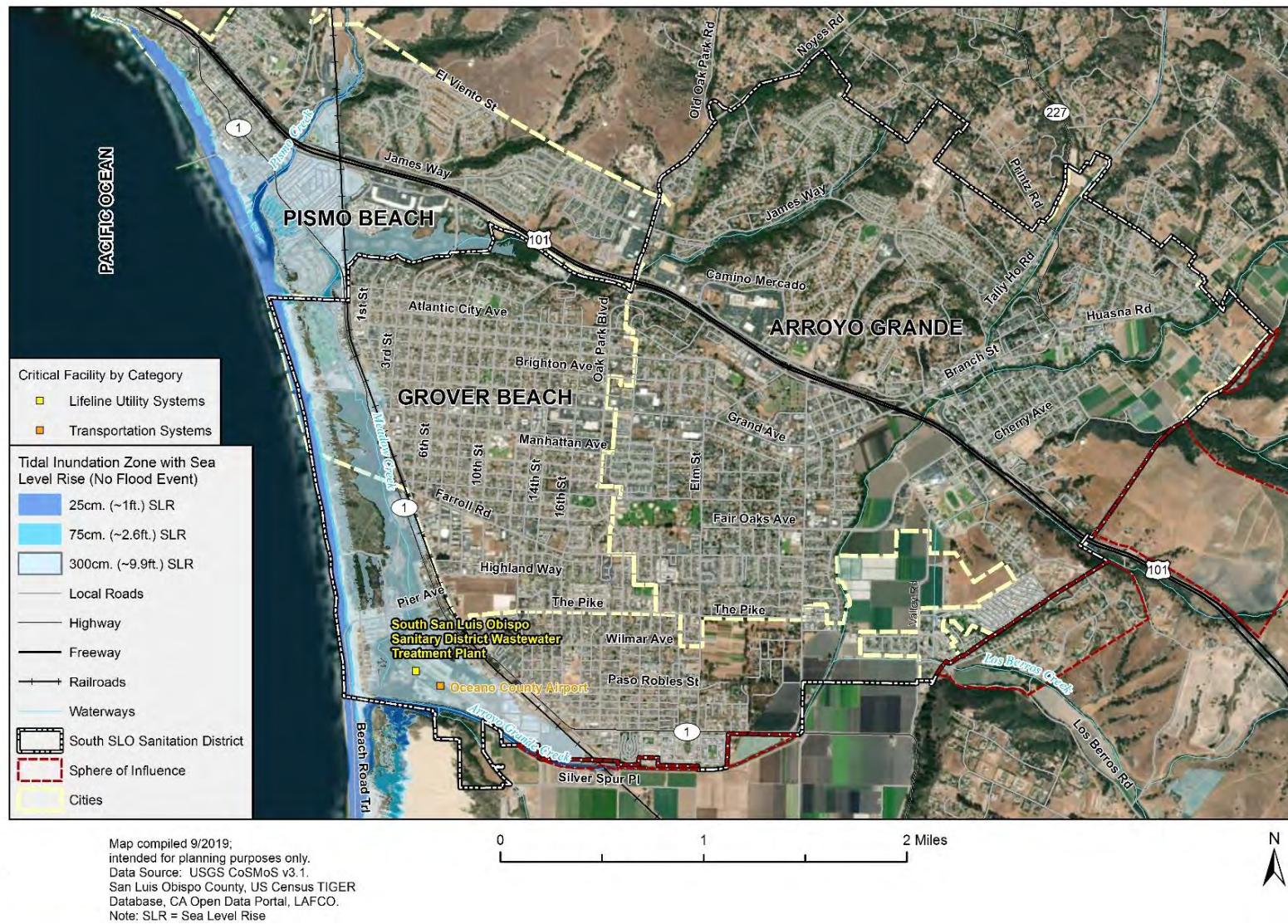
Further information on this hazard at the county level can be found in Section 5.3.7 of the base plan.

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



**Figure U-3** South SLO Sea Level Rise Scenario Analysis: Tidal Inundation and 1% Annual Chance Flood



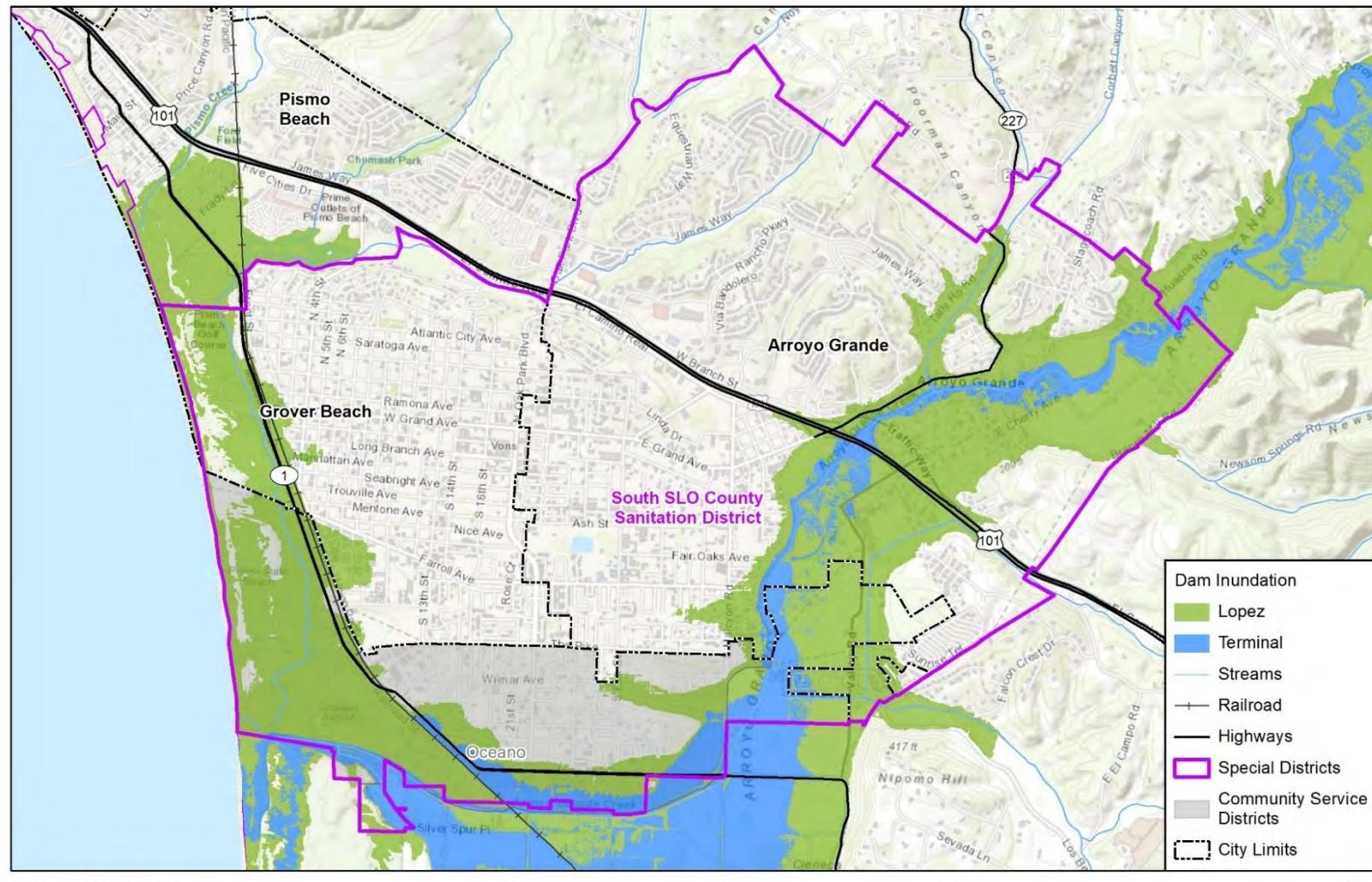
U.3.3.6 Dam Incidents

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





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.

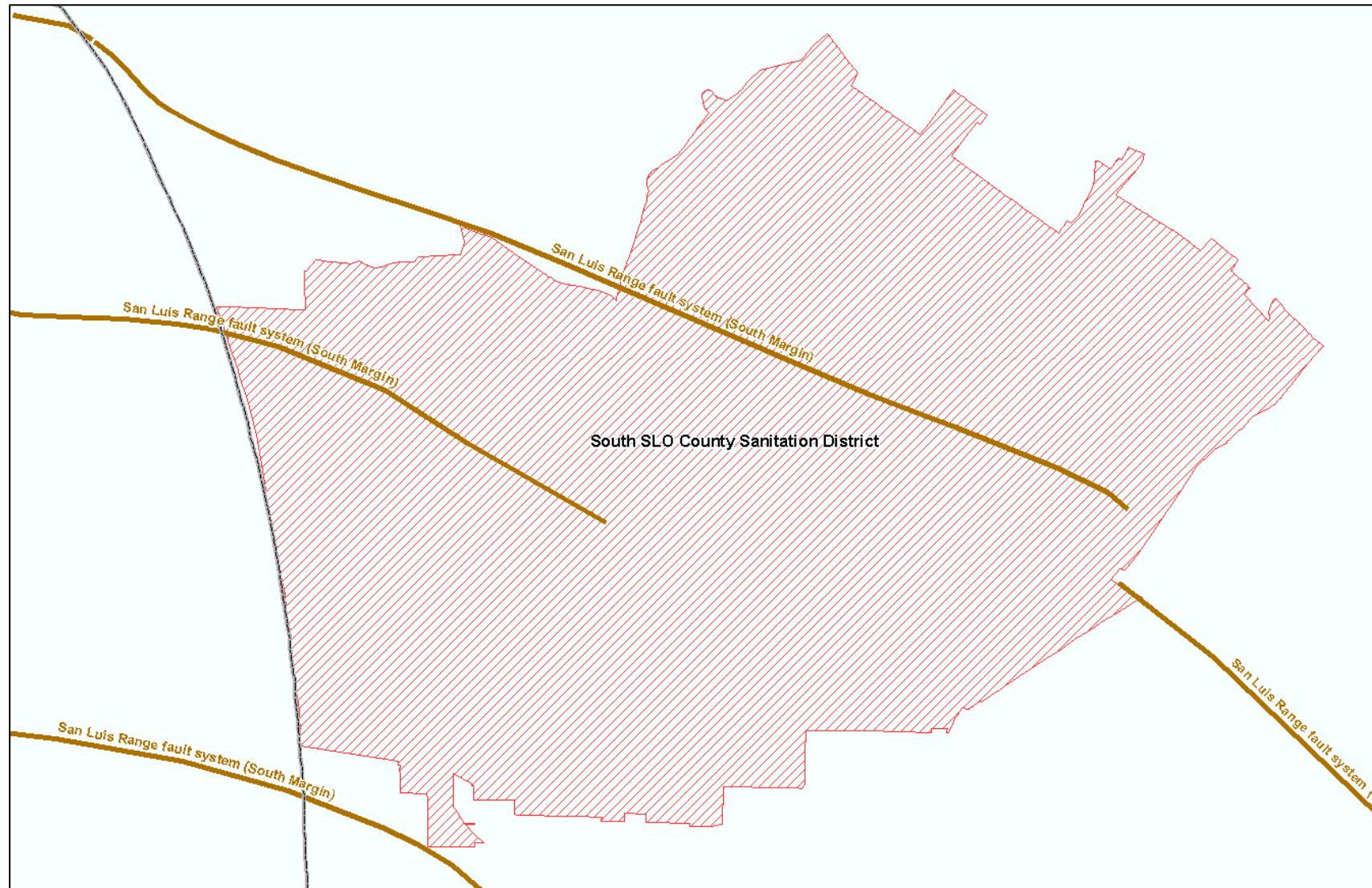
U.3.3.8 Earthquake

The Sanitation District is underlaid by several earthquake faults such as portions of the San Luis Range/South Margin fault system. Overall, earthquake 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 on potential social and structural impacts).

Sewer 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 wastewater lines and facilities from a major earthquake could total over \$531 million countywide. This includes infrastructure owned and operated by the district. 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.



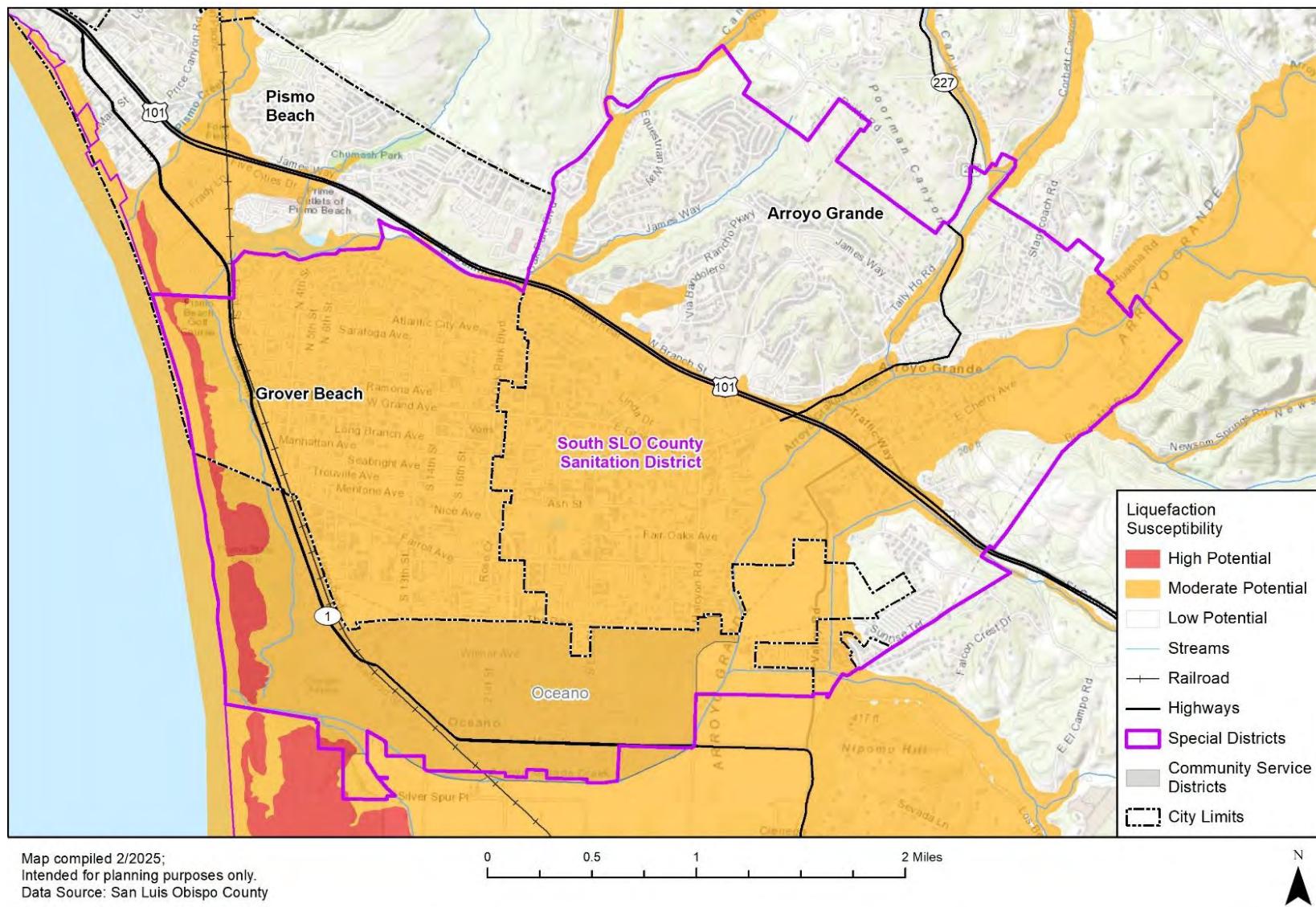
Figure U-5 Earthquake Faults near the Sanitation District



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.

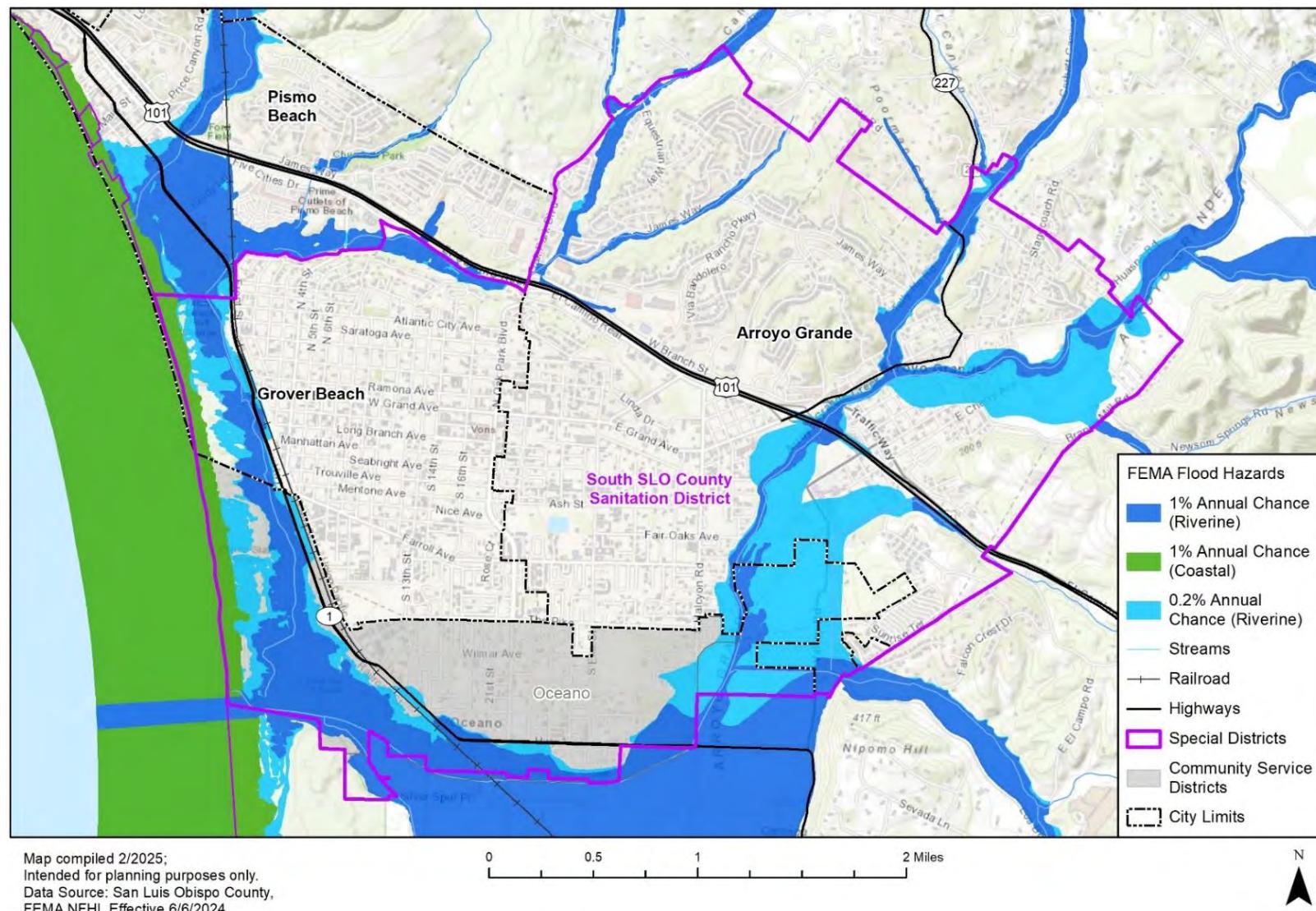
The District remains an active stakeholder in regional water and flood planning and supports the County's participation in the National Flood Insurance Program (NFIP). Overall, flood hazards remain a significant concern due to the low-lying coastal geography and hydrologic



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





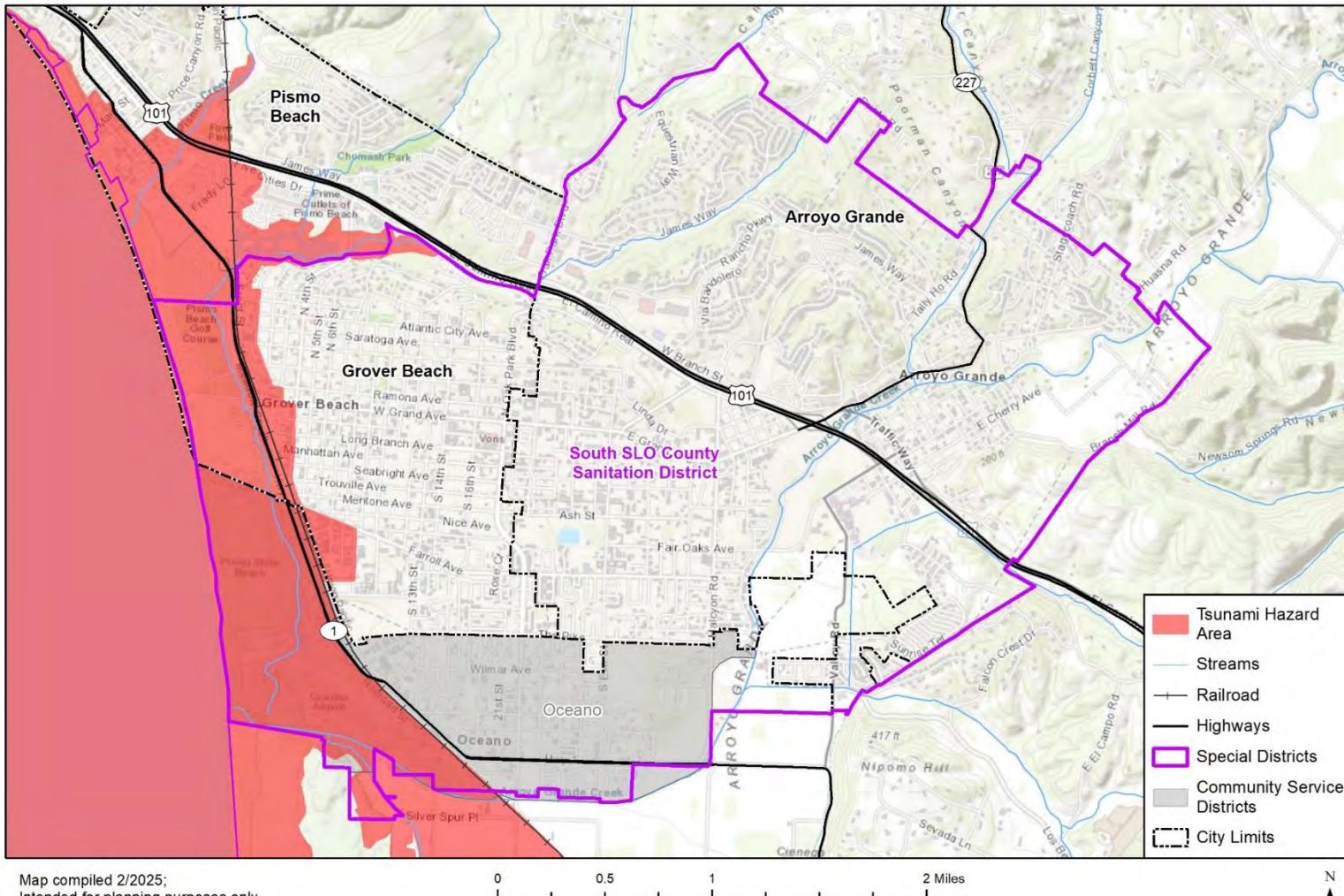
U.3.3.10 Tsunami

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. The District's wastewater facility is located directly within the inundation zone in the map shown below. An event large enough to take out the wastewater facility would put district employees at risk of dam inundation flooding and would likely damage enough of the district's infrastructure to completely take the district out of service until repairs could be made.

Overall, tsunami hazards have been rated by the planning team as holding **low** significance for the District. More information on Tsunamis can be found in Section 5.3.14 of the base plan.



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

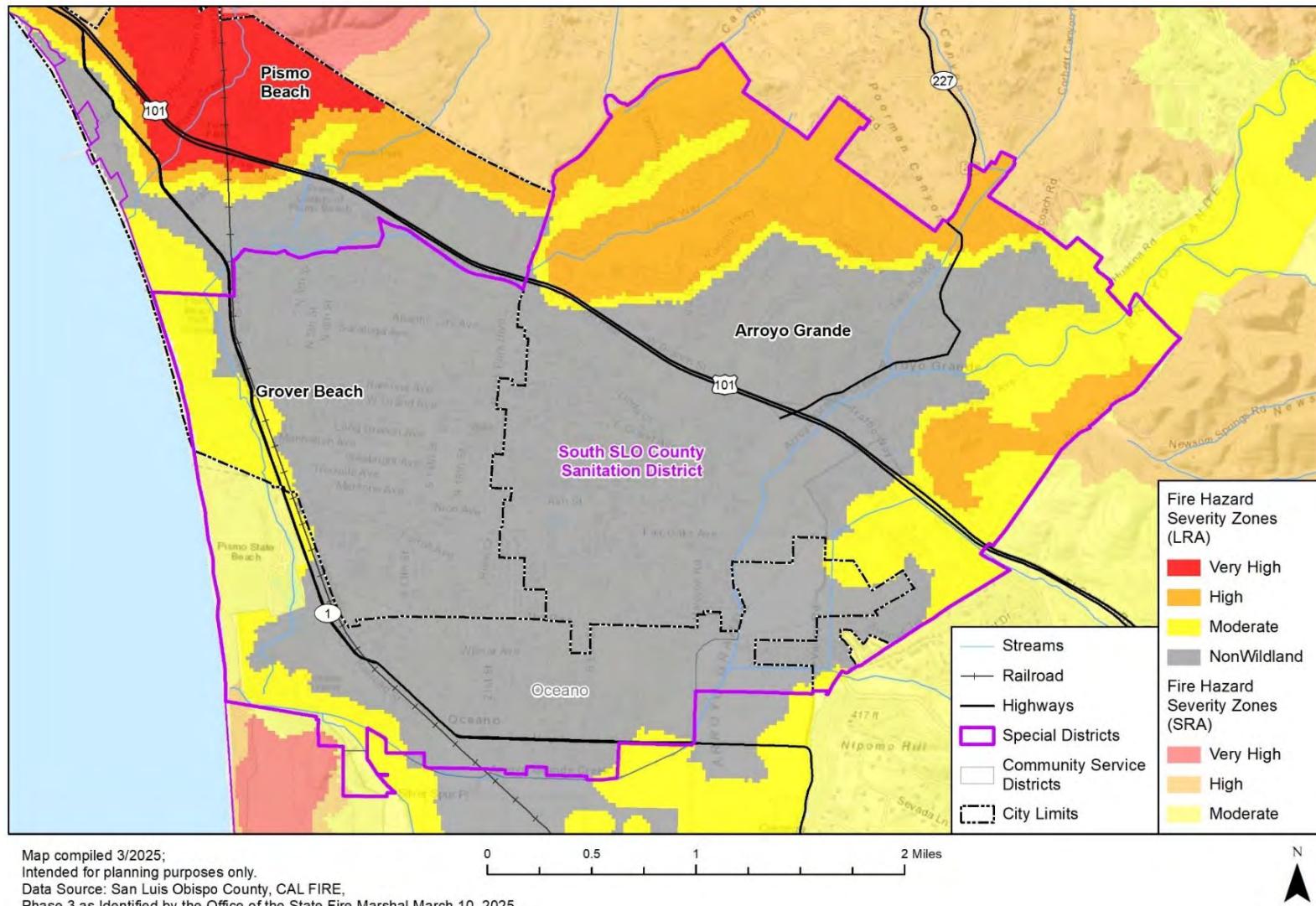


U.3.3.11 Wildfire

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





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	



REGULATORY TOOL	YES/ NO	COMMENTS
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	No	
Other special plans	No	
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

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.



PLAN, STUDY, REPORT NAME	HOW DOCUMENT INFORMED THE ANNEX
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.
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.4.2 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	Yes	Arc GIS of Trunk Sewer Line



PERSONNEL RESOURCES	YES/NO	DEPARTMENT/POSITION/COMMENTS
(Hazard areas, critical facilities, land use, building footprints, etc.)		
Warning systems/services (Reverse 9-11, outdoor warning signals)	No	

U.4.3 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
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.4.4 National Flood Insurance Program

As a special district, the South San Luis Obispo Sanitation District is not eligible to participate in the National Flood Insurance Program (NFIP) and does not have any mapped special flood hazard areas. Accordingly, there are no repetitive loss or severe repetitive loss properties, as defined by the NIFP, located within the District.

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	SSLOCSD	Completed. Flood mitigation has been installed around existing critical infrastructure throughout the facility. In addition, new structures and equipment were



2019 ACTION ID	HAZARD(S) ADDRESSED	MITIGATION ACTION TITLE	LEAD AGENCY	ACTION STATUS NOTES
		caused by sea level rise for the design life of the facilities and provide additional protection from dam incident flooding.		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. Timeline and project cost definitions are noted in Section 7.3.2 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.

It is important to note that the 'Primary Hazards Mitigated' column uses an abbreviated version of Adverse Weather hazards in the interest of conciseness: References to 'Adverse Weather: Thunderstorm' includes the subhazards Thunderstorm/Heavy Rain/Lightning/Hail.

**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 administration	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	Adverse Weather: Thunderstorm, High Wind, Extreme Heat; Coastal Storm/Coastal Erosion/Sea Level Rise, Dam Incident; Flood; Earthquake, Wildfire	Continue inspection and improvements to wastewater treatment facility critical infrastructure and collection system to ensure resiliency for adverse weather, floods, dam incidents, earthquakes and wildfires.	SSLOCSD administration	High: Fund 19- Operating Expense, Fund 26 - Replacement	High	Annual Implementation.	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
SD.3	Drought and Water Shortage, Coastal Storm/Coastal Erosion/Sea Level Rise;	Assess alternate wastewater treatment facility effluent disposal methods to reduce impacts on water supply. 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 administration , Regional Agencies, Permitting Agencies, Regulatory Agencies.	High; Prop 4, FEMA Hazard Mitigation Assistance Grant (HMGP, FMA), General Funds, In-Kind Donations	Medium	Annual Implementation	New in 2025
SD.4	Coastal Storm/Coastal Erosion/Sea Level Rise; Dam Incident; Hazmat; Earthquake, Flood, Tsunami, Wildfire	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. Plan will consider the potential of various natural hazards to cause a spill or release.	SSLOCSD administration	Moderate; FEMA FP&S Grant, DOT Hazardous Materials Emergency Preparedness Grant, General Fund, Staff Time	Medium	Annual Implementation	New in 2025



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



