

## Multi-Jurisdictional Hazard Mitigation Plan for

# Cambria Community Services and Cambria Community Healthcare Districts

**June 2017** 



Prepared by Category Five Professional Consultants, Inc.

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I.	ADOPTION RESOLUTIONS
	INSERT CCSD RESOLUTION

INSERT CCHD RESOLUTION						

#### II. EXECUTIVE SUMMARY

#### A. General Plan Description

The mounting cost of disaster recovery in our nation over the past two decades has engendered a tremendous interest in uncovering effective ways to minimize our country's hazard vulnerability. The Cambria Community Services District and the Cambria Community Healthcare District have joined a nationwide effort to develop a local hazard mitigation plan specific to their jurisdictions. The goal of this plan is to arrive at practical, meaningful, attainable and cost-effective mitigation solutions to minimize both Districts' vulnerability to identified hazards and ultimately reduce both human and financial losses subsequent to a disaster.

Development of this Multi-Jurisdictional Hazard Mitigation Plan entailed reviewing existing applicable plans and assessing the planning capabilities, securing political support and soliciting input and approval from the public and community stakeholders.

Risk assessments were then performed which identified and evaluated each natural hazard that could impact the planning areas. Historical hazard events are described. The future probability of these identified hazards and their impact on each of these communities is described.

Vulnerability assessments were performed which summarized the identified hazards' impact to each community's critical structures and infrastructure and future development. An estimate of the potential dollar losses to vulnerable structures was determined.

The risk and vulnerability assessments were used to determine mitigation goals and objectives to minimize long-term vulnerabilities to the identified hazards. These goals and objectives were the foundation behind the development of a comprehensive range of specific attainable mitigation actions created for each jurisdiction.

An action plan was then creating entails adopting, implementing, assigning responsibility, monitoring, and reviewing this hazard mitigation plan over time, to ensure the goals and objectives are being achieved and the plan remains a relevant document.

#### B. Plan Purpose and Authority

The Disaster Mitigation Act (DMA) of 2000, also commonly known as "The 2000 Stafford Act Amendments" (the Act), constitutes an effort by the Federal government to reduce the rising cost of disasters. The Act stresses the importance of mitigation planning and disaster preparedness prior to an event.

Mitigation Planning Section 322 of the Act requires local governments to develop and submit mitigation plans in order to qualify for the Hazard Mitigation Grant Program (HMGP) project funds. It also increases the amount of HMGP funds available to states meeting the enhanced planning criteria, and enables these funds to be used for planning activities.

For disasters declared after November 1, 2004, the Districts (CCSD and CCHD) must have a Plan approved pursuant to §201.6 in order to receive FEMA Pre-Disaster Mitigation (PDM) project grants or to receive post-disaster Hazard Mitigation Grant Program (HMGP) project funding. The MJHMP is written to meet the statutory requirements of DMA 2000 (P.L. 106-390), enacted October 30, 2000 and 44 CFR Part 201 – Mitigation Planning, Interim Final Rule, published February 26, 2002.

To facilitate implementation of the DMA 2000, the Federal Emergency Management Agency (FEMA) created an Interim Final Rule (the Rule), published in the Federal Register in February of 2002 at section 201 of 44 CFR. The Rule spells out the mitigation planning criteria for States and local communities. Specific requirements for local mitigation planning efforts are outlined in section §201.6 of the Rule. Local jurisdictions must demonstrate that proposed mitigation actions are based upon a sound planning process that accounts for the inherent risk and capabilities of the individual communities as stated in section §201.5 of the Rule.

In developing this comprehensive Multi-Jurisdictional Hazard Mitigation Plan, FEMA's Multi-Hazard Mitigation Planning Guidance (March 2004 and July 2008) was strictly adhered to for the purpose of ensuring thoroughness, diligence, and compliance with the DMA 2000 planning requirements.

#### III. PLANNING PROCESS

#### A. DMA 2000 Requirements

<b>DMA Requirements</b>
§201.6(b) and
§201.6(c)(1):

An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

- (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
- (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
- (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

The plan shall document the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

#### B. Plan Development and Public Input Process

At the onset of the planning process, a news release was developed and issued and informative letters were sent out to community groups and neighboring jurisdictions inviting public participation. A Hazard Mitigation Planning Group was constructed with representatives from a wide variety of community stakeholders. Planning group meetings were held which explained the process that was going to be taken to construct the Hazard Mitigation Plan, reviewed hazards of concern and hazard rankings, and explained the risks and vulnerability to the communities' people, buildings and infrastructure. Mitigation goals, objectives and actions were discussed and reviewed thoroughly with all planning group members until concurrence was reached. A capability assessment and action plan were developed to ensure mitigation actions were realistic and attainable and to assign funding sources and responsibility for each proposed activity.

After the Hazard Mitigation Planning Group Members and the Cambria Community Services District were both satisfied with the newly constructed draft plan and its goals, objectives and mitigation actions, a noticed public forum was held on March 2, 2017 at the Veteran's Hall at 1000 Main Street in Cambria. This was advertised to the general public in the Cambrian, the local Cambria newspaper, and was also posted on the CCSD website. Additionally, neighboring jurisdictions were invited to attend and provide feedback at this forum. Invitations were sent to: the San Simeon Community Services District, San Luis Obispo County Office of Emergency Services, Hearst Castle Museum Director, and the Forest Supervisor for Los Padres National Forest. Please see invitation sent in Plan Appendix C. An Administrative Draft of the Hazard Mitigation Plan was posted on the CCSD website two weeks prior to the public forum to allow the general public and neighboring jurisdiction an opportunity to review the plan. A Power Point presentation was developed that provided a detailed explanation of the risks and vulnerabilities the community faced. The mitigation goals, objectives and actions were explained in detail as were the resources that would be used to help mitigate these hazards. In addition, the general public had an opportunity to ask questions and comment on the proposed plan. All comments were reviewed with the stakeholder group and incorporated into the plan as appropriate. After inputting feedback from the general public, the Plan was taken to the CCSD Board of Directors for approval on March 23, 2017 at the Veterans Hall at 1000 Main Street in Cambria. The Public and Neighboring Communities were invited to attend the event and comment. This was advertised two weeks in advance, on both the County and CCSD websites, community bulletin boards and through a press release. A notification letter was also sent to San Luis Obispo County's Office of Emergency Services Manager and the General Manager of the neighboring San Simeon Community Services District. Two weeks prior to the hearing, the final draft Plan was posted on the CCSD website to enable the public and stakeholders ample time to read and evaluate it. During the Board of Director's meeting, a request was made to add the Cambria Health Care District to the plan as a second jurisdiction. The board decided to table the item until this possibility could be reviewed further.

The CCSD in conjunction with the County of San Luis Obispo and the Cambria Community Healthcare District (CCHD) decided to have the contractor restructure the Local Hazard Mitigation Plan into a Multi-Jurisdictional Hazard Mitigation Plan in order to include the Healthcare District.

After restructuring the plan to include the CCHD and numerous communications with the CCHD, the contractor met with the CCHD Administrator and Operations Director to present and discuss the jurisdictional profile, risk and vulnerability assessments and proposed mitigations goals, objectives and actions. This information was also reviewed with the CCHD Board President. After consensus was reached, the newly developed Draft Multi-Jurisdictional Hazard Mitigation Plan was sent to Planning Group Members for their review. After feedback was received and changes were made, the plan was posted on the CCSD and CCHD websites for public review. The public was made aware of this through a notice in the Cambrian newspaper and was invited to attend and comment at the Public Hearing of the CCHD Board of Directors meeting on held on May 17<sup>th</sup> at the Old Grammar School at 1070 Main Street.

Upon receiving approval by the CCHD board, the newly developed MJHMP was taken back to the Public Hearing of the CCSD Board of Directors on.................. for their approval. Upon receipt of approval by the CCSD Board of Directors, the MJHMP was submitted to the State Hazard Mitigation Office at CAL OES. Upon receiving approval by the SHMO, the plan was submitted to FEMA for final approval.

The Cambria Local Hazard Mitigation Planning Group was comprised of the following agency representatives and key stakeholders:

Name	Agency	Title	Attended All Planning Group Meetings	Identified Hazards and Assisted with Mitigation Action Development	Additional Role
Ron Alsop	SLO County Office of Emergency Services	Emergency Services Manager	Yes	Yes	Planning Advisor
Jerry Grubber	Cambria Community Services District	General Manager	Yes	Yes	Technical Specialist
Michael Thompson	Cambria Community Services District	Vice-President	Yes	Yes	Member of Ad Hoc Committee Overseeing LHMP
Kathe Tanner	The Cambrian	News Reporter/ Photographer	Yes	Yes	Communications and History Specialist
Susan McDonald	Community Volunteer		Yes	Yes	Community Liaison
Joyce Renshaw	Friends of Fiscalini Ranch	Chair	Yes	Yes	Open Space Advisor
Shirley Bianchi	Cambria Fire Safe Council	Moderator	Yes	Yes	Government Affairs/History Specialist
Bruce Fosdike	Cambria Fire Safe Council	Member	Yes	Yes	Technical Specialist

Bob Sayers	Cambria Community Healthcare District	Administrator	Yes	Yes	EMS Technical Specialist
Barbara Bronson Gray	Cambria Community Healthcare District	Director	Yes	Yes	EMS Technical Specialist
Jason Melendy	Cambria Community Healthcare District	Operations Director	Yes	Yes	EMS Technical Specialist
Cherie McKee	San Luis Obispo County Board of Supervisors District #2	Legislative Assistant	Yes	Yes	Governmental Affairs Specialist
Dave Wierenga	Cambria Community Emergency Response Team	Assistant Lead	Yes	Yes	Community Support Emergency Response
Craig Ufferheide	Cambria Community Emergency Response Team	Lead	Yes	Yes	Community Support Emergency Response
Marilyn Sproul	Community Emergency Response Team	Member	Yes	Yes	Community Support Emergency Response
Mike Walsh	Community Emergency Response Team	Member	Yes	Yes	Community Support Emergency Response

Ken Topping	SLO County Planning Commission	Member	Yes	Yes	Governmental Affairs/LHMP Planning/History Specialist
<b>Bob Putney</b>	Cambria CSD Fire Department	Fire Chief Retired/President of CCHD	Yes	Yes	Fire/EMS Technical Specialist
William Hollingsworth	Cambria Fire Community Services District	Fire Chief	Yes	Yes	Fire/EMS Technical Specialist
Gail Robinette	Cambria Community Services District	Past Director	Yes	Yes	Governmental Affairs
Alan Peters	CAL FIRE	County Forester	Yes	Yes	Forest Management
Dave Fowler	CAL FIRE	Fire Captain	Yes	Yes	Fire History and Fire Management
Jeff Eckles	Home Builders Association of the Central Coast	Executive Director	Yes	Yes	Land Use and Development Trends
Joe Prian	Remax	Realtor	Yes	Yes	Land Use and Development Trends
Annie Lachance	Coast Unified School District	Business Manager	Yes	Yes	Project Manager for School District

Lee Wight	Coast Unified School District	Facilities Director	Yes	Yes	Liaison
Mary Ann Carson	Cambria Chamber of Commerce	Executive Director	Yes	Yes	Liaison
Stephen Kniffen	Cambria Chamber of Commerce	Board of Director	Yes	Yes	Liaison
William Siembieda	Cal Poly State University	Professor of City and Regional Planning	Yes	Yes	Land Use/ Planning Specialist
Christine Heinrichs	Cambria Forest Committee	Director	Yes	Yes	Forest Management
Laura Swartz	Cambria Forest Committee	Member	Yes	Yes	Forest Management
Crosby Swartz	Cambria Forest Committee	Member	Yes	Yes	Forest Management
Bob Neumann	Category Five Professional Consultants	Consultant/Vice- President	Yes	Yes	Technical Specialist - Public Safety
Sheri Eibschutz	Category Five Professional Consultants	Consultant/ President	Yes	Yes	Facilitator/ Planner

#### C. Incorporation of Existing Plans and Other Information

At the commencement of and throughout the planning process, a thorough review was conducted of all current and past pertinent planning documents including:

- San Luis Obispo County General Plan including:
  - o Safety Element
  - o Land Use Element
  - Open Space Element
- California State Hazard Mitigation Plan
- Cambria Community Wildfire Protection Plan
- Cambria Forest Management Plan
- San Luis Obispo County Community Wildfire Protection Plan
- San Luis Obispo County Local Hazard Mitigation Plan
- Flood Insurance Rate Maps (FIRM's)
- Past Disaster Declarations
- Santa Rosa Creek Watershed Enhancement Plan
- U. S. Fire Administration Technical Studies
- Cambria Community Healthcare District Healthcare Professional's Committee Healthcare Needs Survey: Listening to Our Community
- Ambulance Response Time Study

#### D. Plan Adoption

#### IV. JURISDICTION PROFILE - CAMBRIA COMMUNITY SERVICES DISTRICT

#### A. Cambria Area History

This community's earliest settlers are believed to be the Native American Chumash and Salinan Tribes. Approximately 30,000 tribal members inhabited Cambria nearly 1000 years prior to the arrival of Spanish settlers. Scientists have recovered evidence indicating that the tribes inhabiting the Cambria area were peaceful gentle individuals that lived modestly. These tribal members were known for their knowledge of medicinal herbs, their food handling hygiene, and their close family bonds. They were accomplished net and basket makers and created jewelry from abalone shells, whale and shark teeth, and crab claws. The Salinan people made use of the abalone, clam and olivela shells collected from the beach and rocky shores by carving them into beads which were used for currency. Prior to the arrival of the Spanish on the Central Coast, the Chumash and Salinan Tribes hunted game and gathered plants on what is now known as the Fiscalini Ranch Preserve. There is evidence that these Native American inhabitants entertained themselves with both music and gambling.

Records indicate that the Portola expedition brought the first Spanish explorers to the area in 1769. The Spanish temporarily named the area El Osito, in response to the Chumash offering them the gift of a juvenile bear. When Mission San Miguel was built in 1797, the Salinans worked on an outpost on San Simeon Creek where goods from the mission could be traded as ships landed near the beach. Remnants of the outpost are still present today near Cambria's sewer ponds and water reclamation facility on San Simeon Creek. There are sacred sites both north and south of Cambria at Morro Rock (lesamo) and Lion Rock at Piedras Blancas.

In 1841, Governor Juan Alvarado gave Julian Estrada Rancho Santa Rosa, a Mexican land grant comprising 13,184 acres. This endowment stretched along the Pacific coastline from San Simeon Creek to the current town of Harmony, and included present-day Cambria.

Over the years, Cambria has also been called San Simeon, Santa Rosa, Rosaville and Slab Town. The District's fertile soils, lumber, and streams attracted many settlers. When cinnabar ore was discovered in 1862, the area appealed to miners. From 1867 to 1870, Cambria was a prosperous town exporting \$280,000 worth of quicksilver. Of the numerous mining claims filed, the Quicksilver Mining Company possessed the most successful. Their mine, the sixth largest in the world, employed 300 workers. This economic boom lasted until 1878 when mercury prices declined. Cambria's fluctuating mercury business came to an abrupt halt in 1889 as the result of a devastating fire. This was a turning point for Cambria which transitioned from a fishing and mining town into a dairy and lumber export community.

Many historic buildings remain in Cambria including the Squibb-Darke house, the Brambles, Santa Rosa School, the Hoosegow and the Old Santa Rosa Chapel. The latter was constructed in

1870. This historic landmark is one of the oldest churches in San Luis Obispo County. Following its closing in 1963, its church and cemetery suffered neglect and vandalism. A later restoration project enabled the Chapel to reopen its doors in 1984.

Between 1919 and 1947, Hearst Castle, intended to be residence for newspaper icon, William Randolph Hearst, was constructed in neighboring San Simeon, California. This project was viewed positively by Cambria citizens who were grateful for employment opportunities particularly during the Great Depression years. Hearst Castle became a California State Park in 1954 and was open to visitors four years later. Cambria residents continue to provide services, supplies and accommodations to Hearst Castle's many visitors.

#### B. Area Geography

The scenic coastal community of Cambria has a total area of 8.5 square miles (22 km<sup>2</sup>). This Census Designated Place (CDP) is entirely comprised of land and is located midway between Los Angeles and San Francisco-240 miles in each direction right alongside California State Highway 1. It resides between sea level and a 200 foot elevation and is located at 35°33′15″N 121°05′15″W.

The town of Cambria is approximately 3 squares miles in area. The District is built upon the Cambria Slab, a 5,000 ft. thick late-Cretaceous sandstone which extends from Villa Creek in Estero Bluffs State Park to San Simeon Creek, holding up the high coastal ridge between Cayucos and San Simeon State Park.

#### C. Communities and Protected Areas

Cambria is an unincorporated community. It contains several protected areas including the Fiscalini Ranch Preserve (originally called the East West Ranch). This is a 430-acre park separating Cambria's East and West Villages. It is owned by the Cambria Community Services District and the conservation easement is held by Friends of Fiscalini Ranch Preserve. This preserve safeguards over a mile of the stunning Pacific coastline.

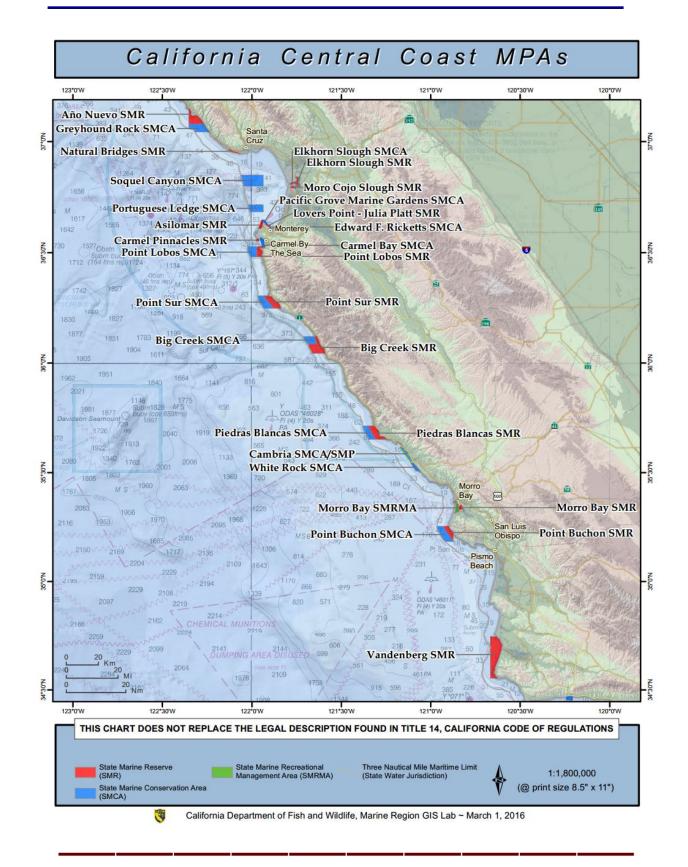
In the waters adjacent to Cambria and San Simeon, four Marine Protected Areas (MPA's) have been designated in order to conserve ocean wildlife and marine ecosystems. They are: Piedras Blancas State Marine Reserve, Piedras Blancas State Marine Conservation Area, White Rock State Marine Conservation Area and Cambria State Marine Conservation Area/ Cambria State Park.

To Cambria's south adjacent to the University of California Natural Reserve site at Rancho Marino lies the rugged White Rock (Cambria) State Marine Conservation Area. This Marine Protected Area spans 2.32 square miles. It is unlawful to injure, damage, take, or possess any living,

geological, or cultural marine resource for recreational and/or commercial purposes, in this area with the exception of the commercial taking of giant kelp (Macrocystis pyrifera) and bull kelp (Nereocystis species). Several ongoing research projects take place here which provide valuable insight in ways to better protect the ocean and planet, and show the value of efforts to preserve the lush kelp beds and biologically rich intertidal zones.

To the north of the White Rock State Marine Conservation Area, the Cambria State Marine Conservation Area was established in 2007 by the California Department of Fish and Game. In 2010, it was also designated Cambria State Marine Park by the California State Park and Recreation Commission. The two areas share the same boundaries. And this MPA spans 6.26 miles. Within this Conservation Area, recreational fishing is permitted while commercial fishing and removal of marine resources is strictly prohibited.





#### D. Population and Housing

#### i. Population Overview

Cambria, Californ	ia 2010-1014				
Median Household Income \$ 62,948					
Persons in poverty, percent	7.2 %				
Educational Attainment: Percent high school graduate or higher	90.5%				
Persons without health insurance, percent	11.0%				
Median Housing Value	\$625,300				
Total Housing Units	4,096				
Number of Companies	920				
Male Median Income	\$46,365				
Female Median Income	\$26,215				
Veterans	734				

Sources: 2010-2014 American Community Survey 5-Year Estimates 2010-2014 American Community Survey 5-Year Profiles 2012 Survey of Business Owners: Company Summary

#### ii. Resident Age and Race

	Cambria CDP, California		
CAMBRIA, CALIFORNIA CDP DEMOGRAPHIC ESTIMATES	Estimate	Percent	
SEX AND AGE			
Total population	6,246	6,246	
Male	2,933	47.0%	
Female	3,313	53.0%	
Under 5 years	166	2.7%	
5 to 9 years	250	4.0%	
10 to 14 years	229	3.7%	
15 to 19 years	259	4.1%	
20 to 24 years	192	3.1%	
25 to 34 years	472	7.6%	
35 to 44 years	466	7.5%	
45 to 54 years	561	9.0%	

55 to 59 years	375	6.0%
60 to 64 years	947	15.2%
65 to 74 years	1,444	23.1%
75 to 84 years	623	10.0%
85 years and over	262	4.2%
Median age (years)	60.8	
RACE		
One race	6,088	97.5%
White	5,718	91.5%
Black or African American	8	0.1%
American Indian and Alaska Native	73	1.2%
Cherokee tribal grouping	0	0.0%
Chippewa tribal grouping	0	0.0%
Navajo tribal grouping	0	0.0%
Sioux tribal grouping	0	0.0%
Asian	33	0.5%
Native Hawaiian and Other Pacific Islander	0	0.0%
Some other race	256	4.1%
Two or more races	158	2.5%
White and Black or African American	0	0.0%
White and American Indian and Alaska Native	109	1.7%
White and Asian	19	0.3%
Black or African American and American Indian and Alaska Native	6	0.1%
Total population	6,246	6,246
HISPANIC OR LATINO AND RACE		
Total population	6,246	6,246
Hispanic or Latino (of any race)	1,338	21.4%
Mexican	1,159	18.6%
Puerto Rican	0	0.0%
Cuban	0	0.0%
Other Hispanic or Latino	179	2.9%
Not Hispanic or Latino	4,908	78.6%
Total housing units	4,096	

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

## iii. Housing Characteristic Profile

CAMBRIA, CALIFORNIA 2010 HOUSING CHARACTERISTICS		
	Number	Percent
HOUSEHOLDS BY TYPE		
Total households	2,762	100.0
Family households	1,758	63.6
With own children under 18 years	403	14.6
<b>Husband-wife family</b>	1,483	53.7
With own children under 18 years	275	10.0
Male householder, no wife present	75	2.7
With own children under 18 years	40	1.4
Female householder, no husband present	200	7.2
With own children under 18 years	88	3.2
Nonfamily households	1,004	36.4
Householder living alone	804	29.1
Male	286	10.4
65 years and over	118	4.3
Female	518	18.8
65 years and over	304	11.0
Households with individuals under 18 years	442	16.0
Households with individuals 65 years	1,320	47.8
and over	1,520	.,.0
A 1 11 2	2.10	
Average household size	2.18 2.61	
Average family size [7]	2.01	
HOUSING OCCUPANCY		
Total housing units	4,062	100.0
Occupied housing units	2,762	68.0
Vacant housing units	1,300	32.0
For rent	88	2.2
Rented, not occupied	3	0.1
For sale only	71	1.7
Sold, not occupied	10	0.2
For seasonal, recreational, or	1,058	26.0

occasional use		
All other vacancies	70	1.7
Homeowner vacancy rate (percent)	3.4	
Rental vacancy rate (percent)	10.1	
HOUSING TENURE		
Occupied housing units	2,762	100.0
Owner-occupied housing units	1,985	71.9
Population in owner-occupied housing units	4,030	
Average household size of owner- occupied units	2.03	
Renter-occupied housing units	777	28.1
Population in renter-occupied housing units	2,001	
Average household size of renter- occupied units	2.58	

Source: U.S. Census Bureau, 2010 Census

#### iv. Poverty Status

The economic status of the local population is very diverse and includes low, middle and high-income families. Cambria's estimated poverty level for the past 12 months is 7.2% which falls well below the state estimate of 16%.

## **Poverty Status Estimates for Past 12 months**

	Cambria CDP, California			
	Total Below poverty Percent below poverty level			
POVERTY STATUS ESTIMATES	Estimate	Estimate	Estimate	
Population for whom poverty status is determined	6,219	450	7.2%	
AGE				
Under 18 years	784	108	13.8%	
Related children under 18 years	777	101	13.0%	
18 to 64 years	3,106	230	7.4%	
65 years and over	2,329	112	4.8%	
SEX				
Male	2,932	162	5.5%	
Female	3,287	288	8.8%	
RACE AND HISPANIC OR LATINO ORIGIN				
One race	6,061	433	7.1%	
White	5,691	407	7.2%	
Black or African American	8	0	0.0%	
American Indian and Alaska Native	73	26	35.6%	
Asian	33	0	0.0%	
Native Hawaiian and Other Pacific Islander	0	0	-	
Some other race	256	0	0.0%	
Two or more races	158	17	10.8%	
Hispanic or Latino origin (of any race)	1,312	210	16.0%	
White alone, not Hispanic or Latino	4,720	229	4.9%	
EDUCATIONAL ATTAINMENT				
Population 25 years and over	5,150	297	5.8%	
Less than high school graduate	487	60	12.3%	
High school graduate (includes equivalency)	791	57	7.2%	
Some college, associate's degree	1,423	131	9.2%	
Bachelor's degree or higher	2,449	49	2.0%	
Ducticion b degree of migner	2,117	TZ	2.070	

EMPLOYMENT STATUS			
Civilian labor force 16 years and over	2,569	156	6.1%
Employed	2,423	134	5.5%
Male	1,178	12	1.0%
Female	1,245	122	9.8%
Unemployed	146	22	15.1%
Male	104	13	12.5%
Female	42	9	21.4%
WORK EXPERIENCE			
Population 16 years and over	5,503	353	6.4%
Worked full-time, year-round in the past 12 months	1,302	37	2.8%
Worked part-time or part-year in the past 12 months	1,451	160	11.0%
Did not work	2,750	156	5.7%
All Individuals below:			
50 percent of poverty level	175		
125 percent of poverty level	576		
150 percent of poverty level	739		
185 percent of poverty level	1,202		
200 percent of poverty level	1,423		

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

#### E. Area Economy

#### **Employment by Industry**

The most common industries in the study area with respect to employee numbers are Accommodation and Food Service, Retail Trade, and Healthcare and Social Assistance. Tourism is the driving force behind the accommodation and food service industry primarily resulting from visitors to Hearst Castle, located six miles to the north and the Piedras Blancas elephant seal rookery, fifteen miles to the north. Additionally, tourists are attracted to Cambria's scenic beaches, tide pools, rocky cliffs and Monterey Pines. Cambria is home to a number of cozy bed and breakfast lodgings particularly along Moonstone Beach Drive in addition to the Cambria Historical Museum in the East Village and Hillcrest Drive's historic Nitt Witt Ridge. Coast Unified School District and Cambria Community Services District are other major local employers.

#### **Industries by Share** (Total Employees 2,423):

INDUSTRY	SHARE	Employees
	(Percent)	
Accommodation and Food Service	18.5%	448
Retail Trade	13.5	326
Healthcare and Social Assistance	11.5	278
Professional, Scientific, Tech Services	8.5	207
Admin Support, Waste Management Services	6.9	168
<b>Educational Services</b>	6.7	163
Construction	5.8	140
Other Services except Public Administration	4.7	115
Real Estate, Rental and Leasing	4.0	96
Manufacturing	3.5	84
Finance and Insurance	2.4	57
<b>Public Administration</b>	2.1	50
Information	1.8	43
Wholesale Trade	1.5	37
Mining, Quarrying, Oil, Gas Extraction	1.0	25
Utilities	0.7	16
Agriculture, Forestry, Fishing, Hunting	0.4	9
Transportation and Warehousing	0.3	7

Dataset: ACS 5-year Estimate Source: Census Bureau

2012 Economic Census: Cambria CDP, California

INDUSTRY TYPE	Number of establishments	Value of sales, shipments, receipts, revenue, or business done (\$1,000)	Annual payroll (\$1,000)	First- quarter payroll (\$1,000)	Number of employees
Manufacturing	5		655		21
Wholesale trade	4	4,682	351	72	12
Retail trade	37	38,578	4,131	989	243
Information	3				
Finance and insurance	4				
Real estate and rental and leasing	13	8,265	1,389	493	29
Professional, scientific, and technical services	12	1,849	619	138	25
Administrative and support and waste management and remediation services	12	2,435	534	109	20
Health care and social assistance	14	4,962	2,499	497	65
Arts, entertainment, and recreation	9	3,237	460	84	21
Accommodation and food services	55	50,559	14,300	3,389	728
Other services (except public administration)	8	1,890	538	132	21

Source: U.S. Census Bureau, 2012 Economic Census, 2012 Economic Census of Island Areas, and 2012 Nonemployer Statistics

#### F. Schools

Coast Unified School District is located within Cambria. The School District serves the Cambria, Cayucos and San Simeon communities in addition to surrounding areas. The district has approximately 750 students enrolled in grades K-12. This includes:

School	Grades	<b>Student Population</b>
Cambria Grammar School	K-5	259
Santa Lucia Middle School	6-8	159
Coast Union High School	9-12	215
Leffingwell High (Continuation School)	9-12	10
Cambria Community Day School	7-12	0

Source: Coast Unified School District-December 2017

Cambria is also home to the New Dawn Montessori School which educates 3-9 year old children.

#### **School Enrollment-Cambria Census Designated Place**

	Cambria CDP, California			
	Total	otal Percent of enrolled population		
SCHOOL ENROLLMENT		In public school	In private school	
CAMBRIA CDP, CALIFORNIA	Estimate	Estimate	Estimate	
Population 3 years and over enrolled in school	935	95.5%	4.5%	
Nursery school, preschool	48	95.8%	4.2%	
Kindergarten to 12th grade	633	96.8%	3.2%	
Kindergarten	10	100.0%	0.0%	
Elementary: grade 1 to grade 4	229	91.3%	8.7%	
Elementary: grade 5 to grade 8	217	100.0%	0.0%	
High school: grade 9 to grade 12	177	100.0%	0.0%	
College, undergraduate	246	91.9%	8.1%	
Graduate, professional school	8	100.0%	0.0%	
Percent of age group enrolled in school				
3 and 4 years	45.3%	95.8%	4.2%	

5 to 9 years       91.6%       91.3%         10 to 14 years       100.0%       100.0%         15 to 17 years       95.8%       100.0%         18 and 19 years       76.3%       100.0%         20 to 24 years       54.7%       100.0%	8.7% 0.0% 0.0% 0.0% 0.0%
15 to 17 years       95.8%       100.0%         18 and 19 years       76.3%       100.0%         20 to 24 years       54.7%       100.0%	0.0% 0.0%
18 and 19 years       76.3%       100.0%         20 to 24 years       54.7%       100.0%	0.0%
<b>20 to 24 years</b> 54.7% 100.0%	
	$\Omega \Omega \Omega /$
	0.0%
25 to 34 years 10.8% 60.8%	39.2%
<b>35 years and over</b> 0.9% 100.0%	0.0%
Population 18 years and over 5,435	
Enrolled in college or graduate school 4.7% 92.1%	7.9%
Males 18 years and over 2,470	
Enrolled in college or graduate school 4.7% 100.0%	0.0%
Females 18 years and over 2,965	
Enrolled in college or graduate school 4.6% 85.4%	14.6%
Population 18 to 24 years 285	
Enrolled in college or graduate school 56.1% 100.0%	0.0%
Males 18 to 24 years 139	
Enrolled in college or graduate school 59.0% 100.0%	0.0%
Females 18 to 24 years	
Enrolled in college or graduate school 53.4% 100.0%	0.0%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

#### **Coast Unified School District Demographics**

2016-2017 Enrollment: 649 Students		
Hispanic	62.41%	
American Indian	.46%	
Filipino	.31%	
Asian	.77%	
African American	.92%	
White	31.9%	
Multiple ethnicities	.77%	
Other/Not Specified	2.46%	

Source: Coast Unified School District-December 2017

To offset the impact of California's declining school budgets, the Cambria Education Foundation, a non-profit organization, was formed. The Foundation offers programs that enhance and enrich the education provided within the Coast Union School District.

#### **Universities:**

The nearest colleges to the study area are Cuesta Community College and California Polytechnic State University (Cal Poly), San Luis Obispo.

#### G. Utilities

The following companies provide utility services to the study area:

Utility	Provider
Electric	Pacific Gas and Electric
Natural Gas	Southern California Gas Company
Telephone	AT&T, SBC Pacific Bell, and Charter
Water, Sewer, Trash	Cambria Community Services District

Cambria obtains its water supply from wells that tap San Simeon and Santa Rosa creeks. The community is vulnerable to water shortages as a result of their reliance on an unstable network of creeks, lakes and State Water Project allocations. To help alleviate this shortage, the Cambria Community Services District has constructed a 9.13 million dollar treatment plant to treat brackish water and return it to the aquifer. The water is a combination of groundwater, percolated wastewater treatment plant effluent and a mix of fresh water and salt water. Operation of this plant is controversial as concerns have been raised that it could harm the fragile ecosystem, particularly San Simeon Creek lagoon, and also be a financial burden to ratepayers.

An ever-increasing number of Cambria residents have abandoned landline telephones and are utilizing cell phones for home phones. This continues to be problematic as cell phone coverage in the Cambria area is sporadic with some areas having poor or no cell coverage.

#### H. Area Climate

Cambria boasts a mild, smog free climate with an average of 286 sunny days per year. An ocean breeze is common as is seasonal fog. Annually, Cambria receives approximately 29 inches of rainfall. Snowfall only occurs at the higher elevations of the Santa Lucia Range. Cambria's temperature is generally in the 50° to 70° F range with an average January low of 45° F and a July high temperature of 75°F.

CLIMATE	Cambria, California	United States
Rainfall (in.)	29.0	39.2
Snowfall (in.)	0.1	25.8
Precipitation Days	48	102
Sunny Days	286	205
Avg. July High	75.1	86.1
Avg. Jan. Low	44.8	22.6
Comfort Index (higher=better)	87	54
UV Index	5.3	4.3
Elevation ft.	139	1,443

Source: Sperling's Best Places 2017

#### I. Climate Change-Global Warming

Data gathered by NASA and NOAA indicate that the Earth's average surface temperature has increased by about 1.2° to 1.4° F in the last 100 years. Since 1998, the eight warmest years on record (since 1850) have been recorded, with the warmest being 2005. Most of the warming in recent decades is very likely the result of human activities. For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation have caused the concentrations of heat-trapping "greenhouse gases" to increase significantly in our atmosphere.

This warming trend may well have an impact on the naturally occurring hazards in the Cambria District. Expected effects will include changes in the range and distribution of plants and animals (pests), longer and hotter/dryer fire seasons, and changes in rainfall and intensities (flooding).

Public Health impacts can also be expected. Extreme periods of heat and cold, storms, and smoke from fire will have impacts on climate-sensitive diseases and respiratory illnesses. More detailed information on specific impacts is found in the Risk Analysis section of this plan.

#### J. Area Transportation Systems

#### **Major Highways**

The Community of Cambria is off U.S. Highway 1 and located 240 miles north of Los Angeles and 240 miles south of San Francisco. Travelers from the south can take Highway 101 north to San Luis Obispo (Morro Bay, Hearst Castle Exit) to Highway 1. Visitors from the north can take Highway 101 south to Highway 46 (Cambria Exit) to Highway 1.

#### **Public Airports**

San Luis Obispo County Regional Airport, McChesney Field, a civil airport in San Luis Obispo County is located 35 miles south of Cambria.

#### **Trains**

An Amtrak station is located in the City of San Luis Obispo, 35 miles south of Cambria and 28 miles east of Cambria.

#### **Other Public Transportation**

- Regional Transit Authority (RTA)-The Regional Transit Authority Route 15 bus operates from Morro Bay to San Simeon 7 days a week. It also makes weekend runs to the Hearst Castle Visitor's Center. RTA also offers bus service from San Luis Obispo to Cambria.
- **Greyhound-**There are Greyhound bus service stations throughout the County with the Atascadero and Paso Robles stations located closest to Cambria.
- Community Bus-The Cambria Community Bus is a means of transportation provided by the Cambria Community Council. It offers free local door to door service for seniors (persons over 60) and disabled persons within the Cambria-San Simeon area. Multiple stops are not only allowed but encouraged.
- **Roadrunner Shuttle-**Roadrunner Shuttle and Limousine Service operates transfer service to and from Cambria Bus 24 hours a day, 7 days a week.

## **Commuting Characteristics**

CAMBRIA CALIFORNIA, CDP COMMUTING CHARACTERISTICS	Total	Male	Female
	Estimate	Estimate	Estimate
Workers 16 years and over	2,407	1,188	1,219
MEANS OF TRANSPORTATION TO WORK			
Car, truck, or van	82.2%	81.7%	82.6%
Drove alone	70.0%	73.7%	66.4%
Carpooled	12.2%	8.1%	16.2%
In 2-person carpool	9.8%	6.7%	12.7%
In 3-person carpool	1.7%	1.3%	2.1%
In 4-or-more person carpool	0.7%	0.1%	1.4%
Workers per car, truck, or van	1.09	1.06	1.12
Public transportation (excluding taxicab)	0.0%	0.0%	0.0%
Walked	1.5%	1.8%	1.3%
Bicycle	0.2%	0.0%	0.3%
Taxicab, motorcycle, or other means	2.0%	3.0%	1.0%
Worked at home	14.1%	13.5%	14.8%
PLACE OF WORK	00 504	00.004	100.004
Worked in state of residence	99.5%	98.9%	100.0%
Worked in county of residence	94.1%	91.3%	96.9%
Worked outside county of residence	5.3%	7.6%	3.1%
Workers 16 years and over who did not work at home	2,067	1,028	1,039
TIME LEAVING HOME TO GO TO WORK			
12:00 a.m. to 4:59 a.m.	3.3%	6.6%	0.0%
5:00 a.m. to 5:29 a.m.	0.3%	0.6%	0.0%
5:30 a.m. to 5:59 a.m.	0.4%	0.0%	0.8%
6:00 a.m. to 6:29 a.m.	3.9%	4.5%	3.4%
6:30 a.m. to 6:59 a.m.	11.2%	14.0%	8.5%
7:00 a.m. to 7:29 a.m.	11.5%	15.2%	7.8%
7:30 a.m. to 7:59 a.m.	11.8%	8.9%	14.6%
8:00 a.m. to 8:29 a.m.	18.0%	21.7%	14.3%
8:30 a.m. to 8:59 a.m.	5.7%	2.9%	8.4%
9:00 a.m. to 11:59 p.m.	34.0%	25.6%	42.3%
TRAVEL TIME TO WORK			
Less than 10 minutes	37.1%	34.3%	39.8%

10 to 14 minutes	15.0%	16.0%	14.1%
15 to 19 minutes	6.5%	8.8%	4.3%
20 to 24 minutes	9.0%	4.9%	13.1%
25 to 29 minutes	3.6%	1.7%	5.5%
30 to 34 minutes	6.9%	10.9%	3.0%
35 to 44 minutes	9.8%	10.3%	9.2%
45 to 59 minutes	5.8%	5.2%	6.4%
60 or more minutes	6.3%	8.1%	4.5%
Mean travel time to work (minutes)	22.1	24.3	20.0
VEHICLES AVAILABLE			
Workers 16 years and over in households	2,405	1,186	1,219
No vehicle available	1.5%	2.2%	0.9%
1 vehicle available	13.7%	13.2%	14.2%
2 vehicles available	52.9%	52.8%	53.0%
3 or more vehicles available	31.9%	31.8%	31.9%

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

#### **K.** Governing Body

Cambria is an unincorporated community located in the County of San Luis Obispo, Supervisorial District #2. San Luis Obispo County provides the following services to the community: Animal Control, Law Enforcement /Sheriff s Department, Planning and Building Department functions, Social Services, Mental Health, and Public Health.

In the state legislature, Cambria is in the 17<sup>th</sup> Senate District and the 35<sup>th</sup> Assembly District. In the United States House of Representatives, Cambria is in California's 24th congressional district.

Formed in 1976, the CCSD provides many services to Cambria's residents including fire protection, water, wastewater, refuse, lighting, open space, parks and recreation. The CCSD is strongly committed to preserving and protecting Cambria's water and other precious resources.

The Cambria Community Services District is governed by a five-member Board of Directors, elected by Cambria residents for overlapping four-year terms. The CCSD Board elects a President who preside over meetings, and a Vice President, who serves in the President's absence. The President's position rotates annually with December nominations. CCSD elections are consolidated with San Luis Obispo County and General Elections and are normally held the first Tuesday in November. The County Clerk Recorder handles all candidate filings.

The CCSD is one of three independent special districts in Cambria. The other two are the Cambria Community Healthcare District (CCHD) described in detail below and the Cambria Cemetery District:

• The Cambria Cemetery District, also known as the Cambria Community Cemetery is a non-profit tax supported agency governed by a three-member board of trustees. The cemetery land, located in the middle of the largest strand of Monterey Pines in California, was originally donated by George Leffingwell in 1870 and later deeded to the San Simeon Masonic Lodge in 1877. In 1940, the San Luis Obispo County set up boundaries and created special districts for the 11 cemeteries in the county. The 12.2 acre Cambria Community Cemetery possesses more than 550 available burial sites and performs 40-70 interments a year. Its grounds contain more than 1200 trees including Monterey Pines, coastal live oaks, Toyon trees, California Pepper tree, and various other native flowers and grasses.

#### L. Land Use

Land use in CCSD is predominantly comprised of single-family residential and large open urban preservation areas. A lesser amount of space is designated for recreation and a commercial district and a small agricultural component also exists. There has been a significant decrease in growth rates this past decade resulting from resource constraints and development restrictions despite the existence of a significant number of vacant lots. While water supply shortages are the greatest concern, public facility and traffic limitations are also problematic.

In 2003, the CCSD Board of Director's passed a motion to limit Cambria's buildout to a maximum of 4,650 connections. The District's Buildout Reduction Plan includes permanently retiring lots to allow the maximum build out to match their goal of 4,650 dwelling units. This would result in a population ranging from 7,724 to 10,469.

In 1999, SLO County restricted Cambria's allocations to a 1 percent maximum for dwelling units in place of the county's rate of 2.3. In 2001, the CCSD instituted a Water Code 350 emergency and enacted a moratorium for new connections excluding in progress "pipeline projects". Resultantly, actual growth in Cambria has remained under the County's one percent limit. In an effort to increase Cambria's water supply, the CCSD is presently engaged in a desalination project.

The public purchase of the Fiscalini Ranch along with the Residential Single Family land use designation led to the elimination of 738 potential dwelling units.

(Source: SLO County General Plan Land Use Element 2014)

### V. JURISDICTION PROFILE- CAMBRIA HEALTHCARE DISTRICT

### A. Cambria Community Healthcare District History

The Cambria Community Hospital District was formed in 1947 for the purpose of attracting medical and dental personnel to the area. Formation was approved by the local voting constituency and was authorized by the San Luis Obispo County Board of Supervisors. In 1951, the District took charge of ambulance service operations that had been run from the Cambria Chamber of Commerce. Their sole ambulance was stored in a shed behind the old Bank of America building. In 1957, the District bought two lots for \$3500 and began construction on the Main Street property. A year later, a clinic was built and medical equipment was purchased for the purpose of leasing the facility to physicians at a nominal rate. As ambulance runs steadily increased, the District added an ambulance garage and additional medical office space in 1963. Two years later, the District purchased a Cadillac ambulance for \$9,595. In 1967, in response to pressure from the local community, the District constructed additional office space for purpose of leasing to a dentist. A separate ambulance garage was constructed in 1971. Three years later, a full-time ambulance manager position was established to assist volunteer coordination. In 1976, a full-time Emergency Medical Technician ambulance staff is hired allowing for 24 hour ambulance coverage augmented by volunteers.

In 1977, the ambulance garage constructed in 1971 is converted into an office and quarters for ambulance crew. Also at this time, Project Heartbeat, an independent fundraising foundation, purchased life-saving equipment. A new Type 1 modular ambulance was purchased in 1978. In 1981, the clinic property was officially named 'The Professional Building.' In 1983, the District sponsored personnel to become EMT II (Intermediate paramedic) to upgrade operations to Advanced Life Support. A year later, a back-up response system is established, part-time clerical staff is hired and a second ambulance is purchased. In 1985, the District passes Measure B, an annual parcel assessment to raise funds to update ambulances and equipment. Two years later, a 1987 Ford Type III is purchased in addition to a 1988 Ford Bronco II to be used as a utility vehicle for the District.

As call volume continues to increase, staffing levels rise to four full-time and 3 part-time paramedics in 1988. Personnel are upgraded to full paramedic status (EMT-P). A year later, a new VHF radio repeater system is installed and implemented to allow direct paging access for back-up personnel. In 1993, the older ambulances are sold and replaced by a 1992 diesel type III ambulance. An additional paramedic position is established in 1994 which enables the Administrator to assume full-time office duties and assist with emergency calls. Paramedic crews reduce their 72 hour work week to 56 hour work week schedule. This same year, the District formally changes its name to the Cambria Community Healthcare District and a Crisis Intervention Team is established. In 1995, the CCHD launches a website and the following year, the district begins Healthcare News, an annual newsletter for residents.

In 1995, a third ambulance is added to the fleet, a 1991 Type II purchased with Project Heartbeat

funding. Five years later, the 1992 Horton is replaced with a new Type II ambulance. In 2002, another Type II is purchased to replace the older one. In 2008, the district replaces their older ambulances with two new Springer Type II's which increases the fleet to four ambulances.

In 2005 the District administrative office moved to 1241 Knollwood Circle. The larger facility contains a multi-purpose room for District meetings and community education including CPR, First Aid and Community Health courses.

In 2006, Measure AA passes which allows for the hiring of additional Healthcare District staff. The following year EMT's and Paramedics are hired to staff two full-time ambulance and the ambulance station is remodeled to house personnel.

Concurrently, CCHD staff starts educating all local Junior High students on CPR and First Aid. The District also commences an annual drunk driving campaign.

#### B. Healthcare District Jurisdictional Boundaries

The Healthcare District's boundaries were set by local election by the citizens and ratified by San Luis Obispo County and the State of California. The CCHD's northern boundary is the SLO County line where it abuts Monterey County, to the Pacific Ocean on the west side, the Rocky Butte mountain range on the East side, and Villa Creek just north of Cayucos. This covers a jurisdictional area and population beyond the CCSD boundaries.

The Ambulance service primarily services the rural communities of Cambria and San Simeon. Their normal response zone is 810 square miles covering from north Cayucos (Villa Creek) to the Monterey and San Luis Obispo County lines. The zone extends inland approximately 15 miles along the Santa Lucia Mountain range. Additionally, the District provides service into the south coastal zone of Monterey County extending up to the community of Pacific Valley. As part of a county-wide move up and cover system, the



Healthcare District ambulance crew will provide coverage when other units in the county are busy and these outside units will provide coverage within the district boundaries as needed. The combined population of Cambria and San Simeon is approximately 6,500. This number increases significantly during the summer months with the influx of tourists visiting Hearst Castle in San Simeon.

### C. Governing Body

The District is governed by a five member Board of Directors. The District meets monthly on the fourth Tuesday at 1:00 P.M. at the Old Cambria Grammar School at 1350 Main Street in Cambria. Meeting agendas are posted at the entrance to the administrative offices and the ambulance station at least 72 hours prior to meeting dates. The Board President may call special meetings as deemed necessary.

#### D. Healthcare District Responsibilities

The Cambria Community Healthcare District (CCHD) is a public, tax and fee supported special district whose mission is to "Improve the health of District residents by providing emergency services, enhancing access to care, and promoting wellness".

The CCHD Administrative offices are located at 1241 Knollwood Circle in Cambria. Additionally, the CCHD possesses a three suite professional medical building located at 2511 and 2515 Main Street, Cambria. These suites are currently leased by Community Health Centers. The ambulance Station located at 2535 Main Street, Cambria is temporarily out of service following weather related issues. The Healthcare District is currently operating two advanced support ambulances out of a temporary Ambulance Station situated at 2500 Camborne Avenue in Cambria.

The Healthcare District also provides community health and education classes including Cardio-Pulmonary Resuscitation (CPR), Automatic External Defibrillator (AED) and Basic First Aid and Safety and operates the following essential programs and services:

- Community Blood Pressure Checks-Available Daily at the ambulance station.
- Community Emergency Response Team (CERT) development
- "Every 15 Minutes" High School Anti-Drinking/Driving Program
- Local school visitation and ambulance demonstrations.
- Emergency Medical Services (EMS) Appreciation Day participation and sponsorship
- Coast Union High School Football standby, as well as other athletic events as requested.
- Special Event standby and assistance, such as the annual Pinedorado Celebration and the Fourth of July Fireworks.
- House numbering project-street addressing.

#### E. Medical Services

The Community Health Centers of the Central Coast (CHC) is a non-profit corporation that leases the CCHD professional medical building for the purpose of operating a weekday medical clinic. This clinic provides primary medical care, family practice medicine and chiropractic services. Located in the East Village of Cambria, the CHC serves residents from the entire North Coast of San Luis Obispo and is the only medical clinic operating in Cambria. The clinic serves approximately 300 patients per month from its 2511 and 2515 Main Street locations.

The following three San Luis Obispo County hospitals provide medical services to Cambria residents:

- Twin Cities Hospital in Templeton (25 miles inland)
- Sierra Vista Regional Medical Center in the City of San Luis Obispo (35 miles South)
- French Hospital in the City of San Luis Obispo (37 miles South).

In January of 2016, a healthcare survey was conducted by the CCHD Health Professionals Committee, which is comprised of physicians, nurses, pharmacists, paramedics, EMT's, pharmacists, Occupational and Speech Therapists and two CCHD trustees. The survey was intended to ascertain the healthcare needs of District residents and identify gaps in healthcare services. The following information was determined based on 60 pilot interviews with residents and a survey sent to 4,200 CCHD residents in January of 2016 with their utility bill. This was also advertised in the local newspaper, the Cambrian. 630 residents completed the survey.

### **Healthcare Needs Survey Results**

66%						
80%						
f District:						
69%						
46%						
40%						
39%						
34%						
istrict:						
15%						
12%						
12%						
12%						
10%						
5%						
What would residents like to see changed or improved:						
28%						
25%						
19%						
13%						

The results of the survey show that 85% of respondents want more medical care close to home. The 2014 Annals of Family Medicine recommends that a population of 7,500 residents should have 6 to 7 Primary Care Physicians. Whereas, the Healthcare District currently has 1.2 Primary Care Physicians and 1.0 Nurse Practitioners for that population size. Resultantly, the CCHD is medically underserved; a burden which falls heavily on the Healthcare District by an increased call volume for emergency medical service.

### F. Public Health Profile

The CCHD is located within San Luis Obispo County which has been ranked  $11^{\text{th}}$  out of 57 California Counties and  $9^{\text{th}}$  for Health Factors.

**TABLE 1 -HEALTHCARE OVERVIEW** 

	San Luis Obispo County	Error Margin	Top U.S. Performers	California	Rank (of 57)
<b>Health Outcomes</b>					11
Length of Life					22
Premature death	5,400	5,100- 5,700	5,200	5,300	
Quality of Life					10
Poor or fair health	13%	13- 14%	12%	18%	
Poor physical health days	3.5	3.3- 3.6	2.9	4.0	
Poor mental health days	3.6	3.5- 3.7	2.8	3.6	
Low birthweight	6%	6-6%	6%	7%	
Health Factors					9
Health Behaviors					20
Adult smoking	12%	12- 13%	14%	13%	
Adult obesity	22%	19- 25%	25%	23%	

	San Luis Obispo County	Error Margin	Top U.S. Performers	California	Rank (of 57)
Food environment index	7.6		8.3	7.7	
Physical inactivity	15%	12- 18%	20%	17%	
Access to exercise opportunities	89%		91%	94%	
Excessive drinking	20%	19- 21%	12%	17%	
Alcohol-impaired driving deaths	32%	28- 37%	14%	30%	
Sexually transmitted infections	356.6		134.1	439.9	
Teen births	17	16-18	19	32	
Clinical Care					6
Uninsured	16%	14- 17%	11%	19%	
Primary care physicians	1,220:1		1,040:1	1,270:1	
Dentists	1,270:1		1,340:1	1,260:1	
Mental health providers	210:1		370:1	360:1	
Preventable hospital stays	27	25-28	38	41	
Diabetic monitoring	84%	81- 87%	90%	81%	
Mammography screening	66%	63- 69%	71%	59%	

	San Luis Obispo County	Error Margin	Top U.S. Performers	California	Rank (of 57)
Social and Economic Factors					5
High school graduation	93%		93%	85%	
Some college	68%	65- 70%	72%	62%	
Unemployment	5.6%		3.5%	7.5%	
Children in poverty	16%	12- 19%	13%	23%	
Income inequality	4.6	4.4- 4.9	3.7	5.2	
Children in single-parent households	26%	23- 29%	21%	32%	
Social associations	9.1		22.1	5.8	
Violent crime	282		59	425	
Injury deaths	58	54-63	51	46	
Physical Environment					17
Air pollution - particulate matter	7.5		9.5	9.3	
Drinking water violations	Yes		No		
Severe housing problems	25%	23- 26%	9%	29%	
Driving alone to work	75%	73- 76%	71%	73%	
Long commute - driving alone	24%	22- 25%	15%	38%	

# TABLE 2- DEATHS RANKED BY THREE-YEAR AVERAGE AGE-ADJUSTED DEATH RATE CALIFORNIA COUNTIES, 2012-2014

2012-2014 Deaths Due To:	San Luis Obispo County Average (per 100,000 population)*	State of California Age Adjusted Average (per 100,000 population)**
All Causes	605.7	619.6
All Cancers	143.2	146.5
Colorectal Cancer	12.9	13.3
Lung Cancer	32.4	31.7
Female Breast Cancer	23.7	20.3
Prostate Cancer	18.9	19.3
Diabetes	12.7	20.4
Alzheimer's Disease	19.3	30.1
Coronary Heart Disease	70.6	96.6
Cerebrovascular Disease (Stroke)	51.8	34.4
Influenza/Pneumonia	9.4	15.3
Chronic Lower Respiratory Disease	33.4	33.7
Chronic Liver Disease and Cirrhosis	14.0	11.7
Accidents (Unintentional Injuries)	34.1	28.2
Motor Vehicle Traffic Crashes	9.9	7.9
Suicide	16.5	10.2
Homicide	1.7	5.0
Fire-Arms	9.5	7.6
Drug-Induced	13.6	11.3

<sup>\*</sup>Estimates based on a San Luis Obispo 2013 Population of 271, 740

Sources: State of California, Department of Public Health: 2012-2014 Death Records. State of California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, December 2014

<sup>\*\*</sup>Estimates based on a California 2013 Population of 38,202,206

### TABLE 3-INFANT MORTALITY - ALL RACE/ETHNIC GROUPS RANKED BY THREE-YEAR AVERAGE BIRTH COHORT INFANT DEATH RATE CALIFORNIA COUNTIES, 2011-2013

2011-2013 Infant Mortality	San Luis Obispo County Average (per 1,000 live births)	State of California Average (per 1,000 live births)
All Race/Ethnic Groups	6.1	4.7
Asian/Pacific Islander	*	3.6
Black	*	9.7
Hispanic	6.8	4.6
White	6.1	3.9

<sup>\*</sup>Please note Infant Mortality Rates for Asian/Pacific Islander and Black Infants is not reported because data is considered unreliable because as too few data elements exist for this County.

Source: State of California, Department of Public Health: 2011-2013 Birth Cohort-Perinatal Outcome Files.

Age-adjusted death rates are hypothetical rates obtained by calculating age-specific rates for each county and multiplying these rates by proportions of the same age categories in a "standard population," then summing the apportioned specific rates to a county total. The "standard population" used in the age-adjusted rates in this report is drawn from the 2000 U.S. Standard Population distribution that applies the same age groupings and proportions as those established by NCHS for the Department of Health and Human Services. These age-adjusted rates put all counties on the same footing with respect to the effect of age and permit direct comparisons among counties and other national reports. It is important to understand that age-adjusted death rates should be viewed as constructs or index numbers rather than as actual measures of the risk of mortality. (Source: County Health Status Profiles 2016-California Department of Public Health)

TABLE 4 - REPORTED CASES OF SELECTED COMMUNICABLE DISEASES

	YEAR 2014						YEAR 2015			
DISEASES	Jan-Mai	Apr- Jun	Jul-Sep	Oct- Dec	Total Cases	Jan-Mar	Apr- Jun	Jul-Sep	Oct- Dec	Total Cases
AIDS/HIV	1 2	2 3	2 0	0 4	5 9	1 4	1 2	1 5	0 5	3 16
Campylobacteriosis	12	24	15	24	75	12	15	30	17	74
<b>Chlamydial Infections</b>	258	245	226	305	1034	291	230	259	292	1072
Coccidioidomycosis	12	10	9	8	39	14	9	11	17	51
Cryptosporidiosis	4	2	2	1	9	0	1	3	1	5
E. Coli	2	1	7	5	15	5	3	4	0	12
Giardiasis	2	1	5	2	10	4	2	5	4	15
Gonorrhea	29	40	39	45	153	28	31	33	73	165
Hepatitis A	0	0	0	0	0	0	0	0	0	0
Hepatitis B (Chronic)	12	7	7	11	37	3	2	10	4	19
Hepatitis C (Community)	105	97	54	72	328	50	64	84	45	243
Hepatitis C (Correctional)	58	58	57	52	225	42	36	39	31	148
Lyme Disease	1	0	1	0	2	1	1	1	1	4
Measles (Rubeola)	0	0	0	0	0	0	0	0	0	0
Meningitis (Bacterial)	1	1	2	3	7	1	2	1	0	4
Meningitis (Viral)	0	7	7	4	18	4	4	5	9	22
MRSA	0	0	2	0	2	0	0	0	0	0
Pertussis	3	12	25	3	43	4	7	5	5	21
Rubella	0	0	0	0	0	0	0	0	0	0

Salmonellosis	9	11	9	11	40	11	13	13	8	45
Shigellosis	0	0	2	5	7	1	1	1	6	9
Syphilis (Primary/Secondary)	1	0	0	4	5	1	1	4	3	9
Tuberculosis	1	1	0	1	3	0	0	0	2	2

Source: San Luis Obispo County Public Health Bulletin- Winter 2016

#### VI. RISK ASSESSMENT

### A. DMA 2000 Requirements

<b>DMA Requirement</b> §201.6(c)(2)(i):	The risk assessment shall include a description of the type of all natural hazards that can affect the jurisdiction.
DMA Requirement §201.6(c)(2)(i):	The risk assessment shall include a description of the location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
DMA Requirement §201.6(c)(2)(iii):	For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

#### **B.** Hazard Identification

Jurisdiction	Earthquake	Wildland Fire	Extreme Weather	Flood	Landslides	Tsunami
Cambria CSD	✓	✓	✓	✓	✓	✓
Cambria	<b>√</b>	✓	✓	✓	✓	✓
CCHD						

It is important to note that as described in the Community Profile sections above, the community of Cambria covers just 8.5 square miles which is centrally located in the much larger 810 square mile Healthcare District. The topography, climate, geology and wildland fire fuel types are all common throughout both areas. Therefore, the identified hazards and Risk Assessments for the two Districts are the same.

#### C. HAZARD PROFILES

**≻**Hazard: Earthquakes

Severity: High	Probability: High

#### **Hazard Definition**

An earthquake is a sudden, rapid shaking of the ground caused by the breaking and shifting of rock beneath the earth's surface or along fault lines. For hundreds of millions of years, the forces of plate tectonics have shaped the earth as the huge plates that form the Earth's surface move slowly over, under, and past each other. Sometimes the movement is gradual. At other times, the plates are locked together, unable to release the accumulating energy. When the amassed energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where the plates meet, commonly called faults. However, some earthquakes occur in the middle of plates.

#### **Fault**

A fault is a fracture in the earth's crust along which movement has occurred either suddenly during earthquakes or slowly during a process called creep. Cumulative displacement may be tens or even hundreds of miles if movement occurs over geologic time. However, individual episodes are generally small, usually less than several feet, and are commonly separated by tens, hundreds, or thousands of years. Damage associated with fault-related ground rupture is normally confined to a fairly narrow band along the trend of the fault. Structures are often not able to withstand fault rupture and utilities crossing faults are at risk of damage. Fault displacement involves forces so great that it is generally not feasible (structurally or economically) to design and build structures to accommodate this rapid displacement. Fault displacement can also occur in the form of barely perceptible movement called "fault creep." Damage by fault creep is usually expressed by the rupture or bending of buildings, fences, railroads, streets, pipelines, curbs, and other linear features.

The California Geological Survey (CGS) is charged with recording and mapping faults throughout California. The Alquist-Priolo Earthquake Fault Zoning (AP) Act was passed into law following the destructive February 9, 1971 6.6 San Fernando earthquake. The AP Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the AP Act is to insure public safety by prohibiting the placement of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault

creep. Fault zoning is continually updated and reviewed by CGS and it is likely that other faults in addition to those currently listed by CGS will be added to the list in the future.

The primary active faults within the County identified by the AP Act include the San Andreas, San Simeon-Hosgri, and Los Osos faults. Two recent studies performed by CGS have estimated the maximum credible ground acceleration that could be generated by active and potentially active faults. Deterministic peak horizontal ground accelerations from these studies range from a low of 0.4 g in the central portion of the County to a high of about 0.7 g along the San Andreas, Rinconada, Oceanic-West Huasna, and coastal fault zones.

The western portion of San Luis Obispo County has a high probability of experiencing ground accelerations in the range of 0.3 g to 0.4 g in the next 50 years. The eastern portion of the County adjacent to the San Andreas Fault has a high percent probability of experiencing a peak ground acceleration of 0.5 g to 0.7 g in the next 50 years. It should be noted that the statistical variance in estimated ground acceleration could easily be plus or minus 50 percent.

In 2008, the Shoreline Fault was discovered off the coast in the area of the Diablo Canyon Power Plant which is owned and operated by Pacific Gas and Electric Company (PG&E). The initial study of the fault, using conservative assumptions about the total length of the fault zone, indicates that a potential magnitude 6.5 strike-slip earthquake is possible. Follow up investigations were performed by PG&E in 2009 and 2010 and more detailed studies are planned in order to refine the size and potential of the fault.

(Source: Report on the Analysis of the Shoreline Fault Zone, Central Coastal California, Report to the U.S. Nuclear Regulatory Commission, January 2011, PG&E)

Historically active faults are generally thought to present the greatest risk for future movement and, therefore, have the greatest potential to result in earthquakes.

Active and potentially active faults in San Luis Obispo County are shown on the map found at the end of this section. A photo of the Oceanic fault as it surfaces on Santa Rosa Creek Road just outside of the District can also be found there.

#### Liquefaction

Liquefaction occurs when ground shaking causes the mechanical properties of some fine grained, saturated soils to liquefy and act as a fluid (liquefaction). It is the result of a sudden loss of soil strength due to a rapid increase in soil pore water pressures caused by ground shaking. In order for liquefaction to occur, three general geotechnical characteristics should be present: 1) ground water should be present within the potentially liquefiable zone, 2) the potentially liquefiable zone should be granular and meet a specific range in grain-size distribution, and 3) the potentially liquefiable

zone should be of low relative density. If those factors are present and strong ground motion occurs, then those soils could liquefy depending upon the intensity and duration of the strong ground motion. Liquefaction that produces surface effects generally occurs in the upper 40 to 50 feet of the soil column, although the phenomenon can occur deeper than 100 feet. The duration of ground shaking is also an important factor in causing liquefaction to occur. The larger the earthquake magnitude, and the longer the duration of strong ground shaking, the greater the potential there is for liquefaction to occur.

The areas of San Luis Obispo County most susceptible to the effects of liquefaction are those areas underlain by young, poorly consolidated, saturated granular alluvial sediments. These soil conditions are most frequently found in areas underlain by recent river and flood plain deposits.

A map which delineates the areas of San Luis Obispo County susceptible to liquefaction is found at the end of this section.

### **History**

Where earthquakes have struck before, they will strike again. The Central California coast has a history of damaging earthquakes, primarily associated with the San Andreas Fault. However, there have been a number of magnitude 5.0 to 6.5 earthquakes on other faults which have affected large portions of the Central Coast. Recent events include the December 2003 - 6.5 magnitude San Simeon Earthquake and the September 2004 - 6.0 magnitude Parkfield Earthquake.

The following are historic earthquakes that had an effect on San Luis Obispo County:

**1830** San Luis Obispo Earthquake - The 1830 earthquake is noted in the annual report from the Mission, and had an estimated magnitude of 5. The location of the event is poorly constrained and cannot be attributed to a specific fault source, but the earthquake reportedly occurred somewhere near San Luis Obispo.

**1857 Fort Tejon Earthquake** - The approximate 7.9 Fort Tejon earthquake of 1857 was one of the greatest earthquakes ever recorded in the United States. It left a surface rupture scar over 350 kilometers (210 miles) in length along the San Andreas Fault and a maximum surface offset of about 9 meters (30 feet). Yet, despite the immense scale of this quake, only two people were reported killed by the effects of the shock. The location of the epicenter is not known. As the name suggests, one idea is to locate it near the area of strongest reported shaking, Fort Tejon. However, because there is evidence that foreshocks to the 1857 earthquake may have occurred in the Parkfield area, it is located near the northwestern end of the surface rupture, just southeast of

Parkfield, near Cholame, on a map produced by the Southern California Earthquake Data Center. (Source: http://www.data.scec.org/significant/forttejon1857.html)

The fact that only two lives were lost was primarily due to the nature of the quake's setting. California in 1857 was sparsely populated, especially in the regions of strongest shaking, and this fact, along with good fortune, kept the loss of life to a minimum. The effects of the quake were quite dramatic, even frightening. Were the Fort Tejon shock to happen today, the damage would easily run into billions of dollars, and the loss of life would likely be substantial, as the present day communities of Wrightwood, Palmdale, Frazier Park, and Taft (among others) all lie upon or near the 1857 rupture area.

**1906 San Francisco Earthquake** - This earthquake has been studied in detail and the effects in San Luis Obispo County have been documented. Modified Mercalli intensity ratings ranged from III-IV in the inland and north coast portions of the County, and IV-V in the south coast areas. The higher intensities were felt in areas underlain by alluvial soil, while the lower intensities occurred in areas underlain by bedrock formations.

**1916 Avila Beach Earthquake** - This magnitude 5.1 event occurred offshore of Avila Beach in San Luis Bay. The earthquake reportedly resulted in tumbling smokestacks of the Union Oil Refinery at Port San Luis, and a landslide that blocked the railroad tracks. The maximum intensity appears to be approximately VI, but the available descriptions of the shaking are somewhat limited.

**1952** Arvin-Tehachapi Earthquake - This 7.7 magnitude earthquake occurred on the White Wolf fault, located south and west of Bakersfield. Throughout most of the San Luis Obispo County, ground shaking intensities of VI were felt. Intensities of IV-V were experienced in the northwest portion of the County, and magnitude VIII intensities were felt in the Cuyama area, in the southeast portion of the County. The higher intensities were likely due to closer proximity to the earthquake epicenter.

**1952 Bryson Earthquake** - This magnitude 6.2 earthquake likely occurred on the Nacimiento fault, and resulted in intensity ratings of VI throughout most of the western portion of the County. Intensities of IV-V were experienced in the eastern portion of the County. Higher intensities were generally felt in the coastal valley areas that are underlain by alluvial soils.

**2003** San Simeon Earthquake - The San Simeon Earthquake struck at 11:15 a.m. on December 22, 2003. The magnitude 6.5 earthquake is attributed to having occurred near the San Simeon/Oceanic/Hosgri Fault system. The epicenter was approximately six miles from the community of San Simeon. As a result of the quake Cambria experienced a residential structure fire, and several commercial and residential buildings were damaged. Some roadways were obstructed and debris blocked some streets.

1934, 1966 and 2004 Parkfield Earthquakes - These earthquakes were all three in the range of magnitude 6.0 and occurred on the San Andreas Fault in or near the northeast corner of the County. Earthquake intensities generally conformed to anticipated characteristics for events of this size, with intense shaking (VII-VIII) being limited to a relatively small area near the epicenters of the quakes. Moderate shaking was experienced in most of the central and western parts of the County. A variation from the expected intensity characteristics was experienced in the La Panza area during the 1934 earthquake. La Panza is approximately 40 miles south of the fault rupture area, but experienced earthquake intensities of VII.

Other Earthquakes - Earthquakes which have occurred outside yet felt within the County during the last century include events such as the 7.0 Lompoc earthquake in 1927, and the 7.7 Arvin-Tehachapi earthquake of 1952. Other more recent earthquakes, such as the 1983 - 6.7 Coalinga earthquake, 1989 - 7.1 Loma Prieta earthquake, 1992 - 7.5 Landers earthquake and the 1994 - 6.6 Northridge earthquake were felt in San Luis Obispo County, however, there was no damage to structures.

#### **Hazard Potential**

The Hazard Potential for earthquakes is dependent upon a multitude of factors. A brief description of those factors is presented below:

- Earthquake Magnitude: Earthquake magnitude, as generally measured by either the Richter or Moment Magnitude scale, is a measurement of energy released by the movement of a fault. As the amount of energy released by an earthquake increases, the potential for ground shaking impacts also increases.
- **Distance from Epicenter**: Earthquake energy generally dissipates (or attenuates) with distance from a fault. Over long distances, this loss of energy can be significant, resulting in a significant decrease in ground shaking with increased distance from the epicenter.

- **Duration of Strong Shaking**: The duration of the strong ground shaking constitutes a major role in determining the amount of structural damage and the potential for ground failure that can result from an earthquake. Larger magnitude earthquakes have longer durations than smaller earthquakes.
- Local Geologic Conditions: The geologic and soil conditions at a particular site have the potential to substantially increase the effects of ground shaking. The thickness, density, and consistency of the soil, as well as shallow ground water levels, have the potential to amplify the effects of ground shaking depending on the characteristics of the earthquake. In general, the presence of unconsolidated soils above the bedrock surface can amplify the ground shaking caused by an earthquake.
- **Fundamental Periods**: Every structure has its own fundamental period or natural vibration. If the vibration of ground shaking coincides with the natural vibration period of a structure, damage to the structure can be greatly increased. The extent of damage suffered during an earthquake can also depend on non-geologic factors. The type of building and its structural integrity will influence the severity of the damage suffered. Generally, small, well-constructed, one and two-story wood and steel frame buildings have performed well in earthquakes because of their light weight and flexibility. Reinforced concrete structures also usually perform well. Buildings constructed from non-flexible materials, such as unreinforced brick and concrete, hollow concrete block, clay tile, or adobe, are more vulnerable to earthquake damage.

### **Effects of Ground Shaking**

The primary effect of ground shaking is the damage or destruction of buildings, infrastructure, and possible injury or loss of life. Building damage can range from minor cracking of plaster to total collapse. Disruption of infrastructure facilities can include damage to utilities, pipelines, roads, and bridges. Ruptured gas and water lines can result in fire and scour/inundation damage, respectively, to structures. Secondary effects can include geologic impacts such as co-seismic fault movement along nearby faults, seismically induced slope instability, liquefaction, lateral spreading, and other forms of ground failure and seismic response

#### **Impacts on People and Housing**

In any earthquake, the primary consideration is saving lives. Time and effort must also be dedicated to providing for mental health by reuniting families, providing shelter to displaced persons, and restoring basic needs and services. Major efforts will be required to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities, and provide continuing care and temporary housing for affected citizens.

#### **Unreinforced Masonry Buildings**

Unreinforced masonry building type structures consist of buildings made of unreinforced concrete and brick, hollow concrete blocks, clay tiles, and adobe. Buildings constructed of these materials are heavy and brittle, and typically provide little earthquake resistance. In small earthquakes, unreinforced buildings can crack, and in strong earthquakes, they have a tendency to collapse. These types of structures pose the greatest structural risk to life and safety of all general building types. Non-structural items and building components can also influence the amount of damage that buildings suffer during an earthquake. Unreinforced parapets, chimneys, facades, signs, and building appendages can all be shaken loose, creating a serious risk to life and property.

A small number of these structures can be found in the CCSD, most located in the commercial district. Located in a residential neighborhood is State Historical Landmark #989, Nitt Witt Ridge. This unreinforced masonry structure was adopted by the State of California in 1986 and is located at 881 Hillcrest Drive. The buildings were constructed by a local artist beginning in 1928, and utilize collected junk and materials to build and support this URM building. This Historic Landmark is a tourist destination available for private tours. Compliant with the State of California's Alquist-Priolo Special Studies Zone Act, the inventorying and public notification of these structures, based on the probability of a damaging quake occurring, is required.

### **Plans and Programs in Place**

The San Luis Obispo County Office of Emergency Services (OES) and the Cambria Fire Department in coordination with local, state, and federal emergency response organizations, continually work to better prepare the Districts residents for the impacts of a significant earthquake event.

The San Luis Obispo County Planning and Building Department ensures that all new construction complies with current codes and ordinances regarding earthquake safety.

First responder agencies, assisted by the Cambria Community Emergency Response Team (CERT), regularly train on building collapse awareness, light rescue techniques, mass casualty triage and treatment, and have a limited amount of equipment and resources available to facilitate heavy rescue operations.

#### **Risk Assessment**

Historically active faults are generally thought to present the greatest risk for future movement and, therefore, have the greatest potential to result in fault rupture hazards.

Located within San Luis Obispo County are several known active and potentially active earthquake faults, including the San Andreas, San Simeon and Los Osos faults These faults could well result in earth quakes which could significantly impact the Community of Cambria.

In the event of an earthquake, the location of the epicenter as well as the time of day and season of the year would have a profound effect on the number of deaths and casualties, as well as property damage. The hazard of earthquakes varies from place to place, dependent upon the regional and local geology. Ground shaking may occur in areas 65 miles or more from the epicenter (the point on the ground surface above the focus).

A moderate earthquake occurring in or near the planning area could result in deaths, casualties, property damage, agricultural and environmental damage, and disruption of normal government and community services and activities. The effects could be aggravated by collateral emergencies such as fires, flooding, hazardous material spills, utility disruptions, landslides, and transportation emergencies.

#### Relationship to Other Hazards – Cascading Effects

Earthquakes can cause many cascading effects such as fires, flooding, hazardous materials spills, utility disruptions, landslides, and transportation emergencies. Some of these impacts are outlined below:

• Effects on people and housing. In any earthquake, the primary consideration is saving lives. Time and effort must also be dedicated to addressing mental health concerns by reuniting families, providing shelter to displaced persons, and restoring basic needs and services. Major efforts will be required to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities, and provide continuing care and temporary housing for affected citizens.

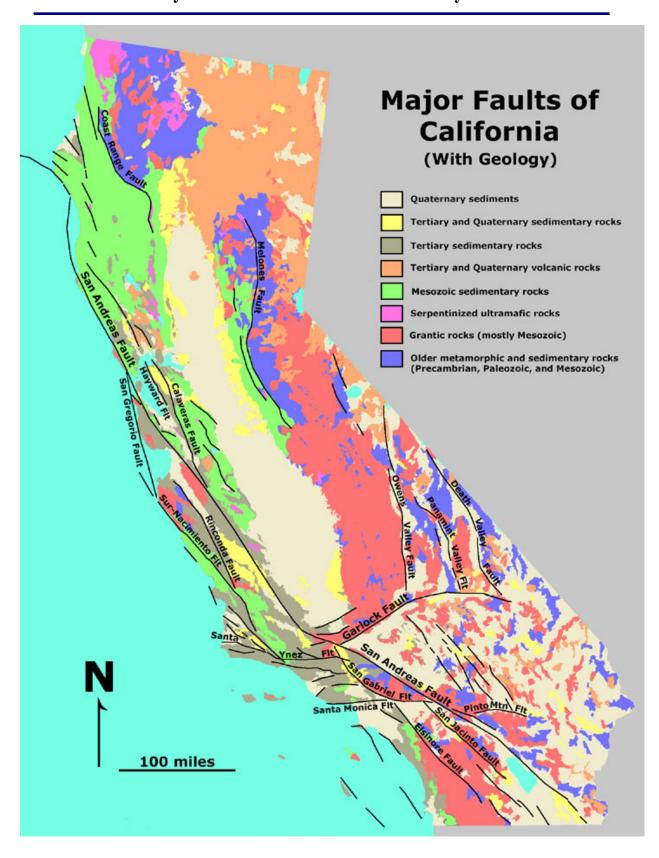
A survey of local, State, and Federal government emergency plans indicate that although there is a general capacity to respond to small and intermediate-sized earthquakes, it is unlikely that any of these governmental units will be able to cope with the immediate impact of a great quake, such as a magnitude 8.3 event on the south-central San Andreas fault. The general public must realize that the assistance that they have been used to expecting simply will not be immediately available. In fact, in the event of an earthquake of such magnitude, citizens must be prepared to wait for up to 72 hours or more for any type of organized response.

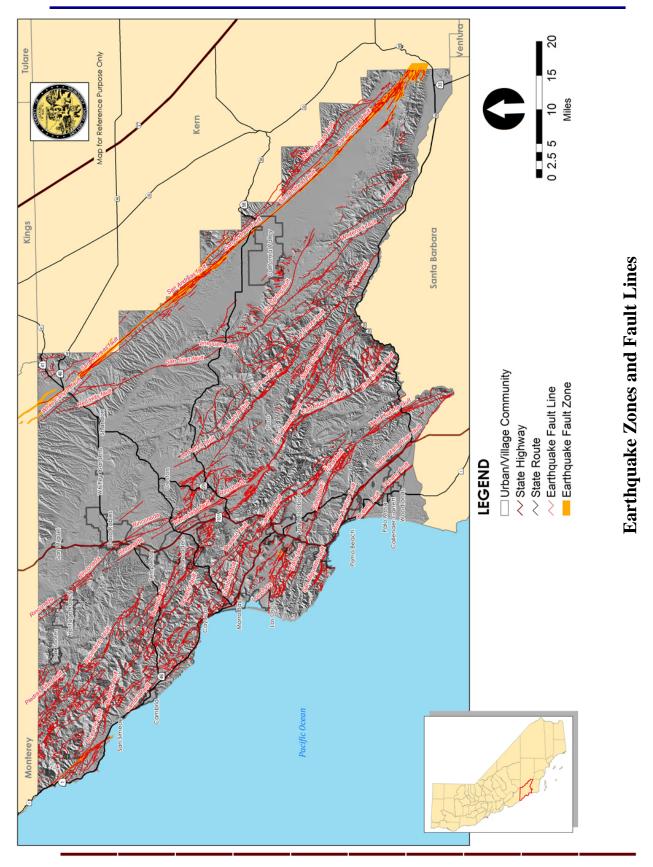
- Effects on commercial and industrial structures. After any significant earthquake, individuals are likely to lose wages due to the inability of businesses to function because of damaged goods and/or facilities. With business losses, tax revenues will be reduced having impacts on the County and District services provided. Economic recovery from even a minor earthquake will be critical to the communities involved.
- Effects on infrastructure. The damage caused can lead to the paralysis of the local infrastructure. Electrical distribution systems, and water and sewer systems, are all very susceptible to damage. The impacts on law enforcement, fire, medical and governmental services can be significant.

#### **Risk Assessment Conclusion**

Both direct and indirect consequences of a major earthquake will severely stress the resources of the both Districts and the County and will require a high level of self-help, coordination and cooperation. Outside assistance from other local, regional, state, federal and private agencies may be delayed by more than 72 hours, depending upon the regional severity of the earthquake. Based on the past history of damaging earthquakes and the fact that District is located within a seismically active region, the probability is rated HIGH. Given the properties at risk and the cascading effects, the severity is rated as HIGH.

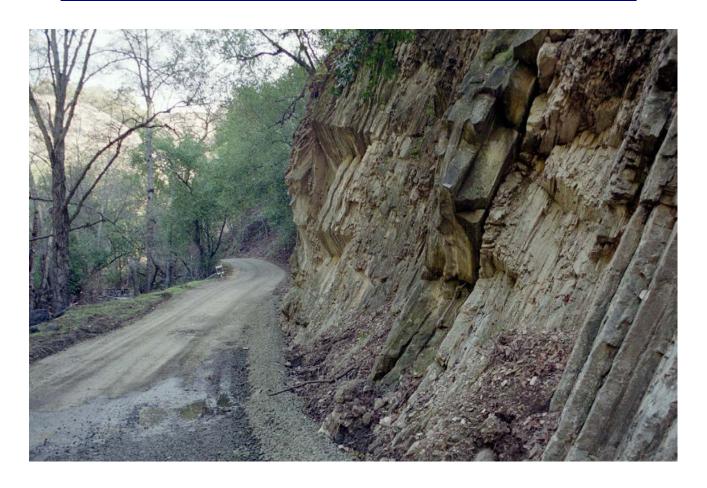
The maps on the subsequent pages show major faults within the State, County and District.







Category Five Professional Consultants, Inc. - MJHMP for Cambria Community Services and Community Healthcare Districts ~ June 2017



Oceanic Fault - located just outside the District on Santa Rosa Creek Road

### **≻**Hazard: Flooding

Severity: Medium	Probability: High

#### **Hazard Definition**

A flood is defined as an overflowing of water onto an area of land that is normally dry. Floods generally occur from natural weather related causes, such as sudden snows melt, often in conjunction with a wet or rainy spring or with sudden and very heavy rainfall. Floods can also result from human causes such as a dam impoundment bursting.

Rainfall and inclement weather are primarily seasonal phenomena in the study area which boasts a mild Mediterranean climate. Generally the rainy season is from November through March. The yearly rainfall average for Cambria is just less than 29 inches, however much higher amounts can be expected in the coastal mountains to the east, for example Rocky Butte will receive an average of 39 inches a year. Flooding generally occurs in response High waves, winds and storm surge from the Pacific Ocean can impede the outflow of Santa Rosa Creek at its' mouth and cause the creek to overflow its' banks.to heavy rainfall events when streams, rivers, and drainage channels overflow their banks. Even during moderately sized storms, flooding can also occur in low-lying areas that have poor drainage.

Many factors can increase the severity of floods including: fires in watershed areas, the placement of structures or fill material in flood-prone areas and tidal or storm influence in low lying coastal areas. Sea level rise due to global warming is likely to have minimal flood impact on most of the community of Cambria due protective bluffs and other topographic features that limit its effect. Additionally, the construction of impervious surfaces such as roadways and rooftops will result in increased runoff.

For floodplain management purposes, the Federal Emergency Management Agency (FEMA) will often use the term "100-year flood" to describe the size or magnitude.

These terms are misleading. It is not a flood that occurs once every 100. Rather, it is the flood elevation that has a 1 percent chance of being equaled or exceeded each year. Thus, a 100-year flood could occur more than once in a relatively short period of time.

The 100-year flood, which is the standard used by most federal and state agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance.

Areas within the 100 and 500 year flood plain of the study area are found in the San Luis Obispo County Flood Hazard Map found in at the end of this section.

Cambria, California Average Rainfall

Average Annual Precipitation	28.86 inches
Record Single Day Rainfall	8.82 inches
Winter	17.19 inches
Spring	7.09 inches
Summer	0.16 inches
Fall	4.42 inches

Source: Weather DB 2017

Monthly Rainfall Records-Cambria, California

Month	Record	Year
	Rainfall	
January	18.35in	1969
February	16.20in	2000
March	18.29in	1995
April	6.05in	2006
May	2.58in	1957
June	3.02in	2011
July	0.40in	1980
August	1.90in	1976
September	3.51in	1976
October	5.76in	2004
November	9.01in	1965
December	14.61in	2010

Source: Weather DB 2017

#### **History**

Over the years the study area has experienced severe flooding events that have resulted in extensive property damage. Historical floods in the Districts and surrounding areas include:

**January and February, 1969** In January of 1969, a series of storms delivered rainfall that totaled over 18 inches in Cambria. In February, another series of storms delivered another 5 to 10 inches. The West Village area was completely inundated and the community water supply was damaged. Streets, highways, and utilities throughout the jurisdiction were heavily damaged.

**January**, **1973** Much like the floods of 1969, the 1973 storm produced a ten-hour period of unusually heavy rainfall. Many creeks and streams throughout the County overtopped their banks and inundated a number of areas.

**February 22, 1993** Cambria received 2.5 inches of rain in a 2 hour period. Flash flooding occurred causing \$500,000 damage to 4 businesses and several residences.

January and March, 1995 A series of powerful and slow-moving storms brought heavy rain and strong winds to all of Central California. Serious flooding occurred in all coastal and many inland streams. In March, 18 inches of rain fell in Cambria and the commercial district was completely inundated, with water as deep as six feet on Main Street. The Windsor Blvd. bridge was damaged and rendered impassible to residents of Park Hill and Seacliff Estates until repairs were made. The Cambria Wastewater Treatment Plant was also damaged as a result of this flooding event. Emergency services were unable to access these areas for a long period of time.

**December 2005 and early January 2006** A series of storms battered the County. Most of the damage occurred New Year's Eve and day. High winds and saturated soils resulted in significant tree falls particularly in the Cambria area where heavy damage was reported to a number of homes and businesses. There was one fatality which was the result of a tree falling on a pick-up truck while it was traveling on U.S. 101.

**March, 2001** Central and Southern California were significantly impacted by a powerful storm that delivered up to 6 inches of rain in some of the coastal areas of San Luis Obispo County. The mountain area of the county received even more, with reports of up to 13 inches. The heavy rain produced numerous flooding incidents.

**December, 2004** A quick moving and powerful storm brought flash flooding and heavy rain to the Central Coast of California. Rainfall amounts ranged from 1 to 3 inches on the coastal

plains to 3 to 6 inches in the more mountainous regions of the county. Flooding problems were reported throughout the county.

### **Plans and Programs**

The San Luis Obispo County Office of Emergency Services (OES) and the Cambria Fire Department in coordination with local, state, and federal emergency response organizations, continually work to better prepare residents of both Districts for the impact of flooding events.

First responder agencies, both law enforcement and fire, regularly train on water rescue and dealing with the cascading effects that can result from flooding. The local chapter of the American Red Cross is prepared to assist citizens in shelter welfare issues. The Fire Department sponsors and the Healthcare District supports a Community Emergency Response Team (CERT). The team is very active having some 150 members meeting and training on a routine basis.

The San Luis Obispo County Planning and Building Department stipulate and enforces codes and ordinances that ensure that buildings are not situated in flood zones.

It should be noted that the Community of Cambria along with all of San Luis Obispo County's unincorporated areas are included in the National Flood Insurance Program (NFIP). The County of San Luis Obispo is committed to remaining a NFIP participating agency.

The National Weather Service uses a number of methods to get weather statements out to the general population. Examples include the Emergency Alert System, NOAA Weather Radio All Hazards (NWR), and newer smart phone Wireless Emergency Alerts (WEA). For certain significant extreme weather events, the County could potentially use the reverse 9-1-1 system. Early Warning System sirens are located throughout the Diablo Canyon Emergency Planning Zone Area, which does not include the Cambria area, but could have some benefit to Cambria residents who work and shop in areas to the south of the District.

Due to the unique and consistent weather patterns in the area, the National Weather Service (NWS) has broken the County into three weather forecast zones: San Luis Obispo County Central Coast, San Luis Obispo County Interior Valleys, and San Luis Obispo County Mountains. The NWS uses a multi-tier system of weather statements to notify the public of threatening weather conditions specific to these areas. These statements are used in conjunction with specific weather phenomena to convey different levels of risk. In order of increasing risk, these statements are:

### **Weather Related Terminology**

- Outlook A Hazardous Weather Outlook is issued daily to indicate that a hazardous weather or hydrologic event may occur in the next several days. The outlook will include information about potential severe thunderstorms, heavy rain or flooding, winter weather, extremes of heat or cold, etc., that may develop over the next 7 days with an emphasis on the first 24 hours of the forecast. It is intended to provide information to those who need considerable lead time to prepare for the event.
- Advisory An advisory is issued when a hazardous weather or hydrologic event is
  occurring, imminent, or likely. Advisories are for "less serious" conditions than
  warnings that may cause significant inconvenience, and if caution is not exercised
  could lead to situations that may threaten life or property. NWS may activate weather
  spotters in areas affected by advisories to help them better track and analyze the event.
- Watch A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, or timing is still uncertain. It is intended to provide enough lead time so those who need to set their plans in motion can do so. A watch means that hazardous weather is possible. People should have a plan of action in case a storm threatens and they should listen for updates and possible warnings especially when planning travel or outdoor activities. The National Weather Service may activate weather spotters in areas affected by watches to help them better track and analyze the event.
- Warning A warning is issued when a hazardous weather or hydrologic event is
  occurring, imminent, or likely. A warning means weather conditions pose a threat to
  life or property. People in the path of the storm need to take protective action. NWS
  may activate weather spotters in areas affected by warnings to help them better track
  and analyze the event.
- Statement A statement is either issued as a follow-up message to a warning, watch, or emergency, that may update, extend, or cancel the message it is following up or a notification of significant weather for which no type of advisory, watch, or warning exists.

#### Risk Assessment

Areas with a past history of flooding have a high probability of future flooding. The vast majority of the study area is well drained being situated on sloping terrain. Drainage problems in sloped areas are a result of improper grading and are minor in nature.

A considerable portion of the community of Cambria and much of the mountainous areas to the east of the District are drained by Santa Rosa Creek. As Santa Rosa Creek makes it way to the ocean, it is joined by a number of tributaries before passing through the District just before it's terminus into the Pacific. This creek has a history of flooding and has caused severe erosion of the creek banks as well as damage to phone and gas lines, water wells, and bridges both in and outside of the District. A considerable portion of the community and much of the mountainous areas to the east of the District are drained by Santa Rosa Creek. As Santa Rosa Creek makes it way to the ocean, it is joined by a number of tributaries before passing through the District just before it's terminus into the Pacific. This creek has a history of flooding and has caused severe erosion of the creek banks as well as damage to phone and gas lines, water wells, and bridges both in and outside of the District. The Windsor Blvd. bridge, just West of Highway-1 often becomes obstructed with debris and inhibits the creek's flow during high creek flow rates. The 122' long x 36' concrete bridge, constructed in 1963, has been damaged and obstructed by floodwaters in several prior flood events. Obstruction of this bridge causes isolation of the Park Hill and Sea Clift Estates residential neighborhoods including the CCSD Wastewater Treatment Plant. Major bank erosion in the past has caused interruption of the town's water supply. Major bank erosion in the past has caused interruption of the town's water supply.

The 100 year floodplain for Santa Rosa Creek is generally confined to the creek channel and surrounding areas south of Main Street. However, the West Village business area along Main Street has been subjected to severe flooding as a result of flood levels that overtopped its banks. A creek bypass and West Village storm drain channel and pump system were constructed in 2009. This has significantly reduced, but not eliminated, this potential flood scenario. This was evident in January of 2017 when a series of relatively moderate storms flooded the Pinedorado and American Legion Hall facilities located at 1000 Main Street. Additionally, flooding occurred at the gas station in the 600 block of Main in the West Village. This flooding was to a lesser extent than that which occurred in 2009 as a result of the implementation of the storm drain channel and pump construction.

### **Related Hazards – Cascading Effects**

While there are some benefits associated with flooding, such as the replenishment of beach sand, and nutrients to agricultural lands, it is generally considered a hazard to development in flood plain areas. Floods can cause many cascading effects. Fire can break out as a result of dysfunctional electrical equipment. Hazardous materials can also get into floodways, causing health concerns and polluted water supplies. In many instances during a flood, the drinking water supply will be contaminated.

Because of the largely unconsolidated nature of the sedimentary soils found in the District, washout of the materials on which bridges and roads are constructed may be a major problem. Stream and creek channel banks currently abut several roads. In addition, slumping of hillsides may result in sections of roads being blocked or carried away. (See the Landslide section for details.)

High winds often accompany winter storms and may cause significant damage in the planning area by blowing down trees that have been killed or damaged by the drought and pitch canker infestation. A more detailed explanation of the tree mortality problem can be found in the Wildland Fire section of this Plan.

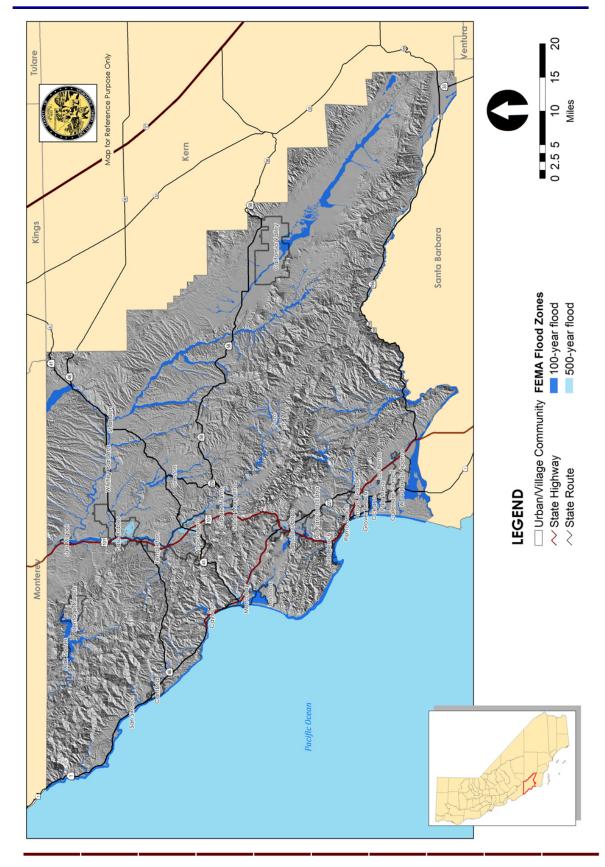
Other problems and hazards associated with flooding and inclement weather include: utility disruptions, broken power lines lying on the ground, and communication system failures.

#### **Risk Assessment Conclusion**

While it is impossible to predict future long-range weather patterns, it is certain that the location of the study area adjacent to the Pacific Ocean and surrounded by the mountains to the East will continue to have a significant exposure to major winter storms and flooding. Therefore, the probability is ranked **HIGH** and the severity, based on the fact that only limited areas are exposed, is ranked **MEDIUM**.



Flood Pump on Main Street - West Village



**≻**Hazard: Landslides

Severity: Low	Probability: Low

#### **Hazard Definition**

Landslides are a geologic hazard where the force of gravity combines with other factors to cause earth material to move or slide down an incline. Some landslides move slowly and cause damage gradually, whereas others move so rapidly that they can destroy property and take lives suddenly and unexpectedly. Slopes with the greatest potential for sliding are between 34 degrees and 37 degrees. Although steep slopes are commonly present where landslides occur, it is not necessary for the slopes to be long.

Landslides, rockslides, and debris flows occur continuously on all slopes; some processes act very slowly, while others occur very suddenly, often with disastrous results. As human populations expand over more of the land surface, these processes become an increasing concern.

There are predictable relationships between local geology and landslides, rockslides, and debris flows. The down-slope movement of earth material, either as a landslide, debris flow, mudslide, or rockslide, is part of the continuous, natural process of erosion. This process, however, can be influenced by a variety of causes that change the stability of the slope. Slope instability may result from natural processes, such as the erosion of the toe of a slope by a stream, or by ground shaking caused by an earthquake.

Slopes can also be modified artificially by grading, or by the addition of water or structures to a slope. Development that occurs on a slope can substantially increase the frequency and extent of potential slope stability hazards. Knowledge of these relationships can improve planning and reduce vulnerability. Slope stability is dependent on many factors and their interrelationships, including rock type, moisture content, slope steepness, and natural or man-made undercutting.

A map of landslide prone areas is found at the end of this section.

### **History**

Natural occurring landslides do not typically occur within the planning area and there is no significant landslide history. This observation is supported by an aerial map review which reveals no indication of slope scarring.

Slopes disturbed by grading or development have failed, especially during periods of heavy rainfall. These events are commonly referred to as "mudslides" and can result in a considerable inconvenience. These manmade landslides can result in damage to structures, water and sewer

lines, transportation routes, and electrical and telecommunications utilities. In Cambria, the areas of Main Street west of Burton Drive to Cornwall Street, Hillcrest Drive from Sunbury Avenue to Iva Court, Sheffield Street, Burton Drive from Rodeo Grounds Road to Eton Road and Ardath Drive west of Burton Drive all have experienced numerous mudslides over the past 20+ years. A recent example of this type of activity occurred in the winter of 2017 when a disturbed slope behind the Healthcare District's ambulance station on Main Street failed. *See photos at the end of this section.* 

### **Plans and Programs**

The Uniform Building Code, which has been adopted by San Luis Obispo County for use in both Districts, requires that site specific investigations be performed for development located in hillside areas. Investigations and practices typically required for hillside development include the following:

- Conduct thorough geologic/geotechnical studies by qualified geotechnical engineers and engineering geologists.
- Require both engineering geologists and geotechnical engineers during construction to confirm preliminary findings reported during initial studies.
- Require certification of the proposed building site stability in relation to the adverse effects of rain and earthquakes prior to the issuance of building permits.
- Mandate coordination between the civil engineer and the project engineering geologist and geotechnical engineer during construction grading.
- Require mitigation of on-site hazards caused by grading that may affect adjoining properties, including erosion and slope instability.

#### **Risk Assessment**

Within the planning area, there is a limited amount of area where the topography can be considered steep to very steep. In the vast majority of this area, the underlying rock formation is very stable and the soil found on these slopes is shallow and held in place by deeply rooted trees and vegetation. These slopes do not typically fail unless disturbed by grading or development.

#### **Risk Assessment Conclusion:**

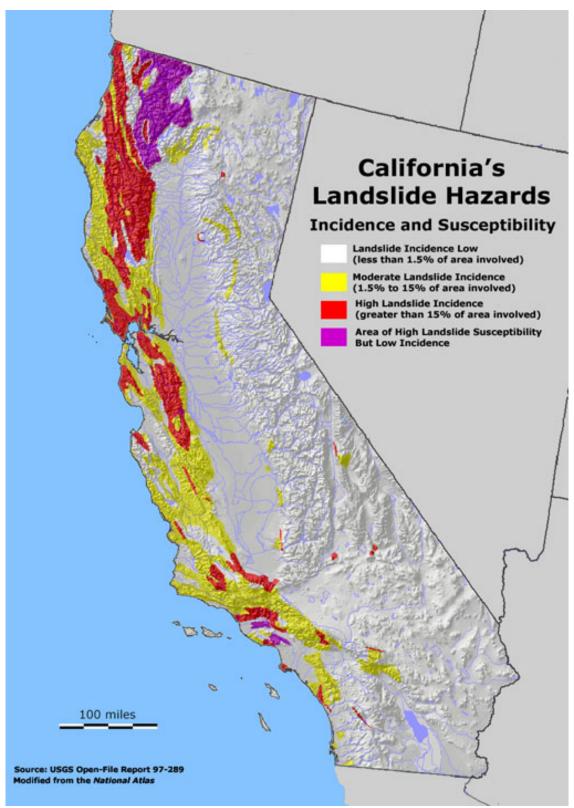
Given the past history and the naturally occur conditions, both the probability and severity have been rated as **LOW**.

Minor Mudslide Behind the Ambulance Station on Main Street (January 2017)

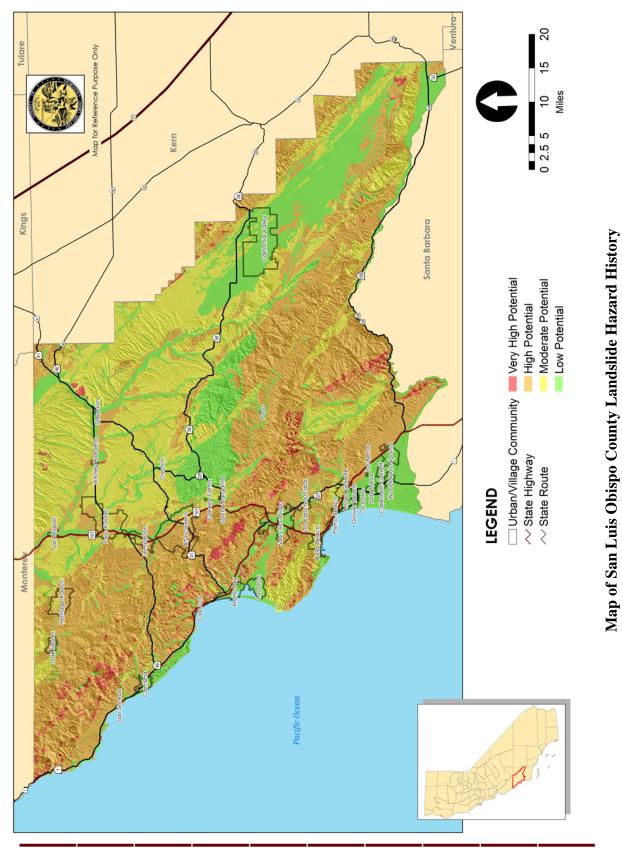




Minor Mudslide on Main Street near Burton Drive (January 2017)



Map of California's Landslide Hazard History



Category Five Professional Consultants, Inc. - MJHMP for Cambria Community Services and Community Healthcare Districts ~ June 2017

**≻**Hazard: Extreme Weather

Severity: Medium	Probability: High

#### **Hazard Definition**

Extreme weather is defined as unusual, severe, or unseasonal weather. It can be considered weather at the extremes of the historical distribution or the range that has been experienced in the past. Adverse or extreme weather occurs only 5% or less of the time and may take the form of onetime events such as storms, or may occur over longer periods of time, such as heat waves, cold snaps, or drought.

A storm is defined as any disturbed state of the earth's atmosphere affecting its surface. It may be marked by strong wind, hail, thunder and/or lightning, also known as a thunderstorm, heavy precipitation in the form of snow or rain, heavy freezing rain, strong winds (windstorm), or wind transporting some substance through the atmosphere as in a dust storm, blizzard, sand storm, etc. Storms generally lead to negative impacts to lives and property such as storm surge, coastal erosion, heavy rain or snow (causing flooding or road impassibility), lightning, wildfires, and vertical wind shear.

A more thorough discussion of these types of events follows:

#### **Drought**

A drought, or an extreme dry period, is an extended timeframe where water availability falls below the statistical requirements for a region. Droughts are not a purely physical phenomenon, but rather interplay between the natural water availability and human demands for water supply. The precise definition of drought is made complex owing to political considerations, but there are generally three types of conditions that are referred to as drought:

- **Meteorological drought** is brought about when there is a prolonged period with less than average precipitation.
- **Agricultural drought** occurs when there is insufficient moisture for average crop or range production. This condition can arise, even in times of average precipitation, owing to soil conditions or agricultural techniques.

Hydrologic drought is brought about when the water reserves available in sources such as
aquifers, lakes, and reservoirs fall below the statistical average. This condition can arise,
even in times of average (or above average) precipitation, when increased usage of water
diminishes the reserves.

When the word "drought" is used by the general public, the most often intended definition is meteorological drought. However, when the word is used by urban planners, it is more frequently in the sense of hydrologic drought.

#### **Wind Storms**

Resulting from air movement from areas of high pressure to those of low air pressure, wind storms can occur at any time of the year and can vary in strength and duration.

#### **Heavy Snow Fall**

Heavy snow fall will, on very rare occasions, occur in the higher elevations of the Santa Lucia range. In the lower elevations, heavy snow fall does not occur.

#### **Thunderstorm**

A thunderstorm, also known as an electrical storm, a lightning storm, thundershower or simply a storm is a form of weather characterized by the presence of lightning and its acoustic effect on the earth's atmosphere known as thunder. Thunderstorms are usually accompanied by strong winds, heavy rain and sometimes snow, sleet, hail, or no precipitation at all. Those which cause hail to fall are known as hailstorms.

#### **Hail Storms**

Hail is precipitation in the form of balls or irregular lumps, always produced by convective clouds, nearly always cumulonimbus. They can vary from pea size all the way up to that of a grapefruit in rare circumstances. Hailstones generally form in thunderstorms between currents of rising air called the updrafts and the current of air descending toward the ground, called the downdraft. Large hailstones indicate strong updrafts in the thunderstorm. The larger the hail, the stronger the updraft needed to hold it aloft in the storm.

#### Freeze

A freeze refers to a particularly cold spell of weather where the temperature drops below 32 degrees. Freezing conditions, especially in the spring, can cause damage to crops and ornamentals and cause considerable discomfort to area residents.

#### **Extreme Heat**

Often referred to as a "heat wave" or "heat storm", it is typically defined as a series of days, 3 or more, where weather conditions combine resulting in day time temperatures considerably higher than the norm. When combined with high humidity, living conditions can become quite uncomfortable.

### **History**

The Cambria community and surrounding Healthcare District areas have a history of adverse or extreme weather. These events can have significant impacts on the health and safety of the population and cause major property and infrastructure damage. The duration of these events, with the exception of drought, is most typically short term. Listed below are the primary dangers associated with these occurrences:

- Threat to life and danger to public health
- Damage/loss of personal property or crops/livestock
- Utility failures
- Interruption of the transportation network
- Interruption of communication systems

A sample of the variety of extreme weather events that have occurred in the community and adjoining areas are found in the table below:

## **Extreme Weather Event History**

LOCATION	Date of Event	Damage Reported	Incident Description	
City of	5/5/1988	4 homes	Tornado-A small tornado developed over the City of	
San Luis		damaged	SLO. The tornado knocked out power to several	
Obispo			hundred homes. 4 homes were damaged, including	
			one struck by a falling cypress tree.	
Countywide	12/21/1998 -	\$5.4 million	Freeze. An unseasonable cold air mass produced a	
	12/24/1998	crop	three-night period of sub-freezing temperatures across	
		damage	Central and Southern California. Agricultural interests	
			suffered heavy crop losses.	
San Luis	12/17/2000 -		High Wind. Gusty offshore winds buffeted the Coastal	
Obispo	12/18/2000		section of SLO County. In the City of SLO, the winds	
County			blew out the windows in an unoccupied mobile home	
			and destroyed part of a car port. In Nipomo, winds	
			of 35 mph with gusts up to 55 mph were reported.	
			The strong winds produced widespread power outages.	
San Luis	3/04/2001 -		High Wind. A powerful and slow-moving storm	
Obispo	3/06/2001		brought heavy rain, strong winds and snow to Central	
County			and Southern California. Across SLO County, rainfall	
			totals ranged from 2 to 6 inches over coastal/valley	
			areas and ranged from 6-13 inches in the mountains	
			producing extensive flooding. In Oceano, the Arroyo	
			Grande Creek overflowed destroying numerous crops	
			and damaging 1 home. In Arroyo Grande, flooding	
			along Corbett Creek damaged 4 homes and 5 Arroyo	
			Grande High School classrooms.	
Oceano	2/02/2004		Tornado. A waterspout, developed offshore of Oceano	
			Dunes and came onshore as a weak tornado. It struck	
			but did not injure a park ranger in his truck. The truck	
			sustained no reportable damage.	
Cambria	01/02/2006		Cambria experienced a significant wind and rain event	
			caused damage to over 60 homes and businesses. Several	
			were injured, First Responders were unable to access many	

		of Cambria due to downed power lines, utilities, tress and debris. Several large areas of Cambria were without power 9 days. Cambria CERT was utilized to perform D Assessment and distribute ice and other assistance to res without power.
San Luis	1997 to	Heavy Surf. 1998 event: An extended heavy surf
Obispo	Present:	Event produced by a series of Pacific storms, battered
County	>20 Events	coastal areas of Central and Southern California.
	Occurred	Along the coast of San Luis Obispo, waves as high as
		25 feet were reported. Elsewhere, coastal areas
		reported 12 to 15foot waves producing some degree of
		damage. In Port San Luis, widespread shoreline
		erosion was reported.

### **Hazard Potential**

### **Drought**

Periods of drought can have significant environmental, agricultural, health, economic and social consequences. Drought can also reduce water quality, because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources. Wildfires are typically larger and more severe in periods of drought due to the lower fuel moisture content.

### **Wind Storms and Thunderstorms**

These wind related events can be quite destructive, especially in Cambria where nearly all of the residential areas and much of the commercial occupancies are situated in an urban forest area. Falling trees and branches can result in considerable property destruction, communication/power line damage, and block transportation corridors. This situation has recently been exacerbated by the disease/drought infested trees. Occasionally, summer thunderstorms (lightning) will cause wildfire in the coastal mountain regions of the County.

#### **Coastal or Winter Storms**

These storms may have hurricane-force winds and cause damage similar to that of a hurricane. However, they are not classified as such because they don't originate in the tropics. Coastal storms usually do most of their damage on the coast, in the form of beach erosion and flooding due to heavy rainfall. The winds originate from low-pressure systems offshore and circulate counterclockwise around the low pressure system. When the low pressure system stops moving, its winds combine

with those of the high pressure system to blow in one direction over a long period of time, which may create massive waves. The duration of such a storm coupled with the height of the tide can be the most significant measure of its destructiveness..

As these storms move to the east, across the community, they typically lose intensity as the coastal range behind Cambria causes the moist air to elevate, condense, and fall out. Santa Rosa Creek, which flows through the center of the community's commercial district, originates in this range and has caused significant flooding events to this area. High tides can further increase flooding potential.

Coastal areas of Cambria and San Simeon are primarily characterized by narrow beaches backed by low cliffs approximately 20 feet-high. This section of coastline is subject to moderate to heavy wave action mostly from northerly swells. This coastal area is comprised of a rock unit called the Cambrian slab which is a local, colloquial name for the Cretaceous-age sandstones that form Cambria's resistant rock headlands. Since sandstone is fairly resistant to erosion, cliff retreat rates in Cambia and San Simeon are relatively low when considering the wave energy imposed on this area. However, present developments along Windsor Avenue are considered to be in danger from wave action and are currently experiencing rates that average seacliffs retreat of two to three inches per year.

#### **Hail Storms**

Significant amounts of damage to property notably to automobiles, skylights, and glass-roofed structures can occur from hail storms. The damage to landscape and vegetation can also be severe. Fortunately, hail very rarely kills anyone. However, each year dozens of people are injured when they are unable to find adequate shelter.

### Freeze and Heavy Snow Fall

Heavy snow fall within the confines of the CCSD is not expected. On rare occasions, snow fall may be heavy enough in the Santa Lucia Mountain Range to the north and east of Cambria and within the boundaries of the Healthcare District to cause damage to the naturally occurring vegetation. This may result in an increased fire season threat as the damaged vegetation dries out and increases the normal fuel loading. This could threaten portions of the community through a larger and more rapid fire spread.

#### **Extreme Heat**

In the United States heat waves are the most lethal type of weather phenomenon. Between 1992 and 2001, deaths from excessive heat in the United States numbered 2,190, compared with 880 deaths from floods and 150 from hurricanes. Situated on the coast, the community will not experience extremely high temperatures. However the public health risks from extended exposure to **higher than normal** temperatures include hyperthermia, rashes, edema, dehydration, and heat cramps, to name a few. Wildland fire danger is also known to increase dramatically as the daily temperatures climb.

#### **Plans and Programs**

The San Luis Obispo County Office of Emergency Services (OES) and both the Cambria Fire Department and the Cambria Community Healthcare District, in coordination with local, state, and federal emergency response organizations, continually work to better prepare the residents for the impact of these types of emergency events.

First responder agencies, both law enforcement and fire, routinely train on handling the cascading effects that can result from events of this nature. The local chapter of the American Red Cross is prepared to assist citizens in shelter welfare issues. The Fire Department sponsors and the CCSD is very supportive of a Community Emergency Response Team (CERT). The team is very active having some 150 members meeting and training on a regular basis.

The SLO Planning and Building Department stipulate and enforces codes and ordinances that ensure that buildings are not situated in flood zones and are in compliance earthquake and fire code requirements. Once constructed the Fire Department has a Fire Code inspection program.

The National Weather Service uses a number of methods to get weather statements out to the general population. Examples include the Emergency Alert System, NOAA Weather Radio All Hazards (NWR), and newer smart phone Wireless Emergency Alerts (WEA). For certain significant adverse weather events, the County could potentially use the reverse 9-1-1 system. Early Warning System sirens are located throughout the Diablo Canyon Emergency Planning Zone Area, which does not include the Cambria area, but could have some benefit to Cambria residents who work and shop in areas to the south of the District.

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- **Statement** A statement is either issued as a follow-up message to a warning, watch, or emergency, that may update, extend, or cancel the message it is following up or a notification of significant weather for which no type of advisory, watch, or warning exists.

#### **Risk Assessment**

The varied topography of the planning area exaggerates the types of extreme weather. For example, winter storms typically generate more rain in the study region than in other parts of the County as they move over the Santa Lucia Mountain Range located just behind the community of Cambria.

Listed below are the primary dangers associated with extreme weather events:

- Threat to life and danger to public health
- Damage/loss of personal property or crops/livestock
- Utility failures
- Interruption of the transportation network
- Interruption of communication systems

### **Risk Assessment Conclusion**

The planning area has a history of extreme weather, mostly winter storm related. These events can have significant impacts on the health and safety of the population and cause major property and infrastructure damage. These types of events include: winter storms, wind events, thunder storms, hail storms, heat waves and drought. The duration of these events, with the exception of drought, is most typically short term.

Given the past history of both occurrence and damage, and based on the wide range of potential events this section is rated as **Medium** in severity and **High** in probability.

### **≻**Hazard: Wildfire

Severity: Very High	Probability: High

#### **Hazard Definition**

A wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and destruction to property. Outbreaks of wildfire occur routinely throughout San Luis Obispo County's dry season and are predominantly, four out of every five times, generated by humans. As a natural hazard, a wildfire is often the direct result of a lightning strike. These lightning induced fires often occur in remote undeveloped areas and spread to urban areas where structures and other human development are more concentrated. Cambria has experienced lightning caused fires in the last five years within the boundaries of the CCSD, lightning caused fires within the CCHD are not uncommon.

Wildland Urban Interface (WUI) fires occur where vegetation and the built environment are intermingled. Two WUI conditions exist: 1) where there is a distinct interface boundary between the forest and built areas and 2) inter-mix areas where buildings and infrastructure are intermingled in the forest itself. Both WUI conditions exist in Cambria.

The predominate dangers from wildfires are:

- The destruction of vegetation, property, and wildlife
- Injury or loss of life to people living in the affected area or using the area for recreational facilities.
- Post fire erosion/mudslides during winter time rainfall.
- Air quality impact to public health.

#### **History**

Historically, wildland fires in San Luis Obispo County have burned thousands of acres and caused considerable property loss with an occasional life loss. The majority of these large fires have occurred away from the coastal areas in the warmer and dryer portions of the county (East of the Santa Lucia Mountain Range). Large fires on the coastal side of the county occur less frequently. A Fire History Map of San Luis Obispo County is found at the end of this section. It reveals no

large fire history in the study area and surrounding open space over the past 75 years. A number of large fires originating in the hotter and dryer Nacimiento Lake - Fort Hunter Liggett area have advanced toward the planning area, but have been held in check along the top of the Santa Lucia Range. However, serious fires do occur on the coastal slope of the Santa Lucia range. Wildfires have burned coastal shrubs and Bishop Pine at Montana de Oro State Park south of Cambria, and coastal shrubs and conifers north of Cambria along the Big Sur coast line. These coastal fires occur on a 4-5 year cycle.

### Coastal Fire History - Similar Fuels and Weather Conditions

Morse Fire	1987	190 acres	36 homes, multiple vehicles	Pebble Beach - Burned in an area of very similar fuels, weather and topography.
Highway 41 Fire	August 1994	49,000 acres \$10M	42 homes, 61 other structures, 91 vehicles	Morro Bay - Fire started in the coastal mountains behind the City of Morro Bay. The fire burned into the City of Atascadero and threatened the City of San Luis Obispo.
Diablo Fire	January 2007	1800	2 Structures	Structure fire, just north of Diablo Canyon Nuclear Power Plant. Fire ignited adjacent fuels, wind driven to the top of the ridge an adjoining canyons.
Creek Fire	Nov 2012	430	None	Escaped vegetation management fire, just north of the Diablo Nuclear Power Plant
Pfeiffer Fire	December 2013	850 acres	22 homes, multiple vehicles	Big Sur - Fire started along Hwy 1 near Big Sur campground and burned all the way to the ocean.

### San Luis County Fire Large History - Burning into the Coastal Zone

Weferling Fire	1960	50,000 acres	Unknown	Fire started in the vicinity of Lake Nacimiento and burned north and west towards the coast. It was held along the ridge of the Santa Lucia Range
Logan Fire	August 1997	50,000 acres \$6M	Unknown	The Logan Fire burned in the coastal mountains to the east of the study area in fuels and topography similar to those found in portions of the study area.
Highway 41 Fire	August 1994	49,000 acres \$10M	42 homes, 61 other structures, 91 vehicles	Fire started in the coastal mountains behind the City of Morro Bay. The fire burned into the City of Atascadero and threatened the City of San Luis Obispo.
Chimney Fire	August 2016	46,344 acres	49 homes, 21 other structures, multiple vehicles	Very similar to Weferling Fire 56 years earlier, this started in the vicinity of Lake Nacimiento and burned north and west towards the coast. It was held along the ridge of the Santa Lucia Range.

The most historically significant fire is the Morse. In 1987, this fire burned 190 acres in Pebble Beach, Monterey County. This fire took place in a Monterey Pine forest similar to that in Cambria. It burned over the course of one day into a wildland urban interface community.

A Report from the US Fire Administration summarizes: On May 31, 1987, fire escaped from an illegal campfire in the Del Monte Forest in Pebble Beach, California. The resulting fire burned 160 acres and destroyed 31 structures causing an estimated damage of approximately \$18,000,000. There were 18 injuries, including 15 firefighters and 3 civilians. The fire spread from the forest into the residential area. Control of the fire in the forest was difficult due to heavy fuel load and low fuel moisture. Structures were located on a ridge above the main body of the fire. A fire storm occurred near the top of this ridge, spreading the fire across the residential area. The spread of the fire through the residential area was aided by wood shingle roofs, natural vegetation around structures, accumulation of pine needle litter on roofs, and the intensity of the fire.

#### Risk Assessment

When determining a jurisdiction's risk from wildfire, the local weather, fuels, and topography must be reviewed:

**Topography** refers to canyons, hillsides, river bottoms, ridges and other "lay of the land" features. These all have a dramatic effect on fire spread. Aspect or orientation of the fuel beds also plays an important role. In general, south facing slopes are subjected to greater solar radiation, making them drier and thereby intensifying wildland fire behavior. The topography within the District is quite varied; from a gently sloping marine terrace to a number of steep and inaccessible canyons (i.e. Strawberry and Fern Canyons). The majority of the topography is sloped and heavily developed with residential/single family homes; therefore a significant wildland urban interface exists. The two small but separate commercial districts, East and West Village, are located on level or very gently sloped areas above and to the north of Santa Rosa Creek. Both of these commercial districts are in wildland urban interface areas.

Weather in this region weather plays a key factor in the wildland fire potential. Rain fall occurs primarily between the months of November and April, and 30 year averages range between 29 inches per year in the District to 39 inches in the mountains to the east of the community. Summers are typically cool with fog and or high relative humidity. Humidity is an important fire-related weather factor. As humidity levels increase, vegetation moisture levels also increase, thereby decreasing the likelihood that plant material will ignite and burn. Wind in the area, a key factor in spread, is quite predictable and is usually moisture laden due to the close proximity of the ocean. The wind typically flows to the N/W in the spring and summer. The fall season will see dryer and warmer days. Strong winds from the Northwest through East quadrants present the greatest threat to fire spread in the planning area. This combined with the lack of rainfall will see the fire hazard threat increase.

**Fuel**s are classified into three risk categories as described below: Very High, High and Moderate. *Please see description below.* 

#### **Fuel Hazards**

Fuel	Fire Hazard Ranking	Locations in Cambria
Grass	Moderate to High	Open grass covered areas are found throughout the
		planning area. They are the prominent fuel type on
		gentle slopes of the marine terrace east side of
		Highway 1, Moonstone Beach, Windsor, and
		Fiscalini Ranch areas.
Brush	Very High	Scattered fuel beds of both heavy and light brush are
		found throughout the planning area. Examples are
		found along both sides of Highway 1 Burton Drive
		to Santa Rita Creek.
Timber	Very High	Timber stands are found throughout the planning
		area, both in scattered and heavy stands. Timber is
		often inter-mixed with structures in the community
		of Cambria. There is a considerable number of
		standing dead trees throughout both planning areas.
		Extensive dead and down materials are found on the
		forest floor in many areas.

The arrangement of the fuel on the land is also an important consideration. By breaking up or thinning fuel beds, one can slow the rapid spread rates of wildfires. In addition, the removal of certain fuels in the horizontal plane can prevent fires from "laddering" into the tops of trees where it may burn hotter and be more difficult to contain.

A combination of factors has led to a very dangerous overloading of highly flammable fuels throughout the community and the adjoining areas. With the establishment of the community around 1860, fire suppression activities have allowed a tremendous buildup of both live and dead fuels that would normally be reduced through naturally occurring fire.

**Tree Mortality** First observed in the Cambria area in 1994, Pine Pitch Canker, a disease of pine trees caused by the fungi, *Fusarium circinatum*, began taking a toll on the native Monterey Pines that the community is famous for. This process increased dramatically with the advent of the drought that started in 2012. Trees stressed by the drought were more susceptible to the fungus and bark beetles. By 2014, the tree mortality rate increased dramatically, studies conducted by Cal Poly University measured mortality in older Monterey Pines, in some areas, in excess of 70%.

As a result of this significant fuels problem, the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP), has re-classified the CCSD and much of the surrounding CCHD area as being in a High Fire Hazard risk area.



Dead and Down Fuels in Cambria, 2017

### **Plans and Programs**

### **Ordinances and Regulations**

### California Fire Code

This code may be adopted by local jurisdictions, with amendments, and provides minimum standards for many aspects of fire prevention and suppression activities. These standards include:

provisions for access, water supply, fire protection systems, and the use of fire resistant building materials. The Cambria CSD has adopted and added local amendments to the California Fire Code.

#### Wildland Urban Interface Code

This code may be adopted by local jurisdictions, with amendments to provide minimum as well as additional standards for Wildland Urban Interface prevention, protection and suppression. These standards include specific requirements for fire resistant building materials, exterior armoring, access, fire protection systems, defensible space clearance and ornamental vegetation standards. The Cambria CSD has adopted this code with amendments.

### California Health and Safety Code and the California Building Code

The Health and Safety Code contains regulations pertaining to the abatement of fire related hazards. It also requires that local jurisdictions enforce the California Building Code, which provides standards for fire resistive building and roofing materials, and other fire-related construction methods.

#### Public Resources Code (PRC) and Title 14 of the California Code of Regulations

PRC regulations define criteria for State Responsibility Area (SRA) wherein state wildland fire laws and regulations apply. All of Cambria, and surrounding area, is within PRC defined SRA. PRC contains statewide fire prevention and suppression standards in SRA wildland fire areas. Title 14 includes Fire Safe Regulations that apply to development in SRA.

### San Luis Obispo County General Plan Safety Element and Land Use Ordinance

Land use planning and building development in the study area is regulated by the County Planning and Building Department with Fire Code administered by the Cambria CSD Fire Department. Sections within these documents establish minimum standards for development in Cambria.

### **Preparedness Programs**

### Cambria FireSafe Focus Group

The Cambria FireSafe Focus Group is a subset of the San Luis Obispo County Fire Council. The Fire Safe Council is comprised of stakeholders in community fire prevention and especially wildland fire pre-planning, community education and preparedness. The Cambria Fire Safe Focus Group is operated entirely by



agency representatives and volunteers and established to improve local fire safety especially from a wildland fire. Their mission is to mobilize Cambrians to protect their community, homes, businesses

and environment from wildfire. Group members were instrumental in recently receiving a Firewise Community designation from the National Fire Protection Association by creating a community-wide Wildfire Risk Assessment, creating an Action Plan from that assessment, conducting a 'Firewise Day' event, and investing at least \$2.00 per capita on community fire prevention efforts.

To help Cambrians become aware of the potential for a major wildland fire in Cambria the focus group has established the following goals:

- 1. Public education and outreach.
- 2. Identify fire-safe practices, landscaping and defensible space around your home or business.
- 3. Identify fire-safe construction and reducing fire embers ability to enter the inside of a building or ignite the building exterior.
- 4. Hold community requested neighborhood meetings to promote wildland fire safety and preparedness.
- 5. Coordinate and deliver Fire Safe Chipping events to reduce accumulated dead wildland fuels and to enhance defensible space around buildings.
- 6. Increase awareness and public education regarding evacuation safety, routes and family and business plans.

### **Mitigation Projects**

The SLO County Fire Safe Council and CAL FIRE have been very successful in receiving grants from a number of sources for a variety of fuel mitigation projects within the planning area. The completed and current projects listed below total approximately \$1,280,000.

### **Completed projects include:**

- Community wide chipping (available annually since 2000)
- PG&E Grant to maintain and enhance Bridge Street Fuel Break
- Hillside hazardous fuel reduction in Rodeo Grounds portion of Fiscalini Ranch Preserve
- Cambria CSD has installed an emergency evacuation road across the Fiscalini West Ranch to ensure that Park Hill, Seaclift Estates, Marine Terrace and West Lodge Hill residents have an alternate escape route and First Responders have a secondary means of ingress and egress
- Emergency Access Road across the Fiscalini Ranch West.

 A hydrant installed adjacent to the south end of the Emergency Access Road on the Fiscalini West Ranch to be used as a helicopter water supply and general water supply for combating wildfires.

### **Projects currently underway include:**

- CAL FIRE Greenhouse Gas Fund Grant (Salvage harvest dead and dying trees)
- Strawberry Canyon, Greenspace -The Cambria Land Trust, (Fuel Reduction)
- Cambria Hwy.1- Fuel Reduction.
- Cambria Community Chipping
- Public Safety Hazard tree removal throughout community
- Public Outreach, Education, Preparedness
- Monitoring and measurement of forest health restoration
- Community Fire Safe Fair 2016 Western States WUI Grant
- CAL FIRE Tree Mortality Grant

#### **Grant in process:**

• Greenhouse Gasification Biomass Plant (CCSD Applicant w/Fire Safe Council Support)

### On Going Work (non-grant funded):

CAL FIRE and the California Conservation Corps routinely works with Cambria CSD staff and other property owners to create fire defense improvements where there is a community benefit. These projects are typically funded through State of California Fire Prevention fees (SRA fees) and include:

The Bridge Street Fuel Break - \$ 45,000 in SRA funds was used to established a 100 foot wide fuel break to separate the Covell Ranch forest stands from adjacent Pine Knolls, Happy Hill, and Liemert Tract areas of Cambria. The fuel break also cleared area along Bridge Street between the East Village and Cambria Cemetery. See photos at the end of this section.

- CAL FIRE hand crews have provided clearance in the CSD owned Fiscalini Ranch Preserve; Greenspace owned Strawberry Canyon, and privately owned Covell Ranch.
- Defensible space compliance inspections (PRC 4291) of 100% of applicable properties in Cambria.

### **Management Plans and Studies**

Given the high values at risk a considerable amount of studying and planning has been completed over the past two decades:

- In 1992, a **Statewide Pine Pitch Canker Task Force** was established. A Pitch Canker Action Plan was approved in 1995. The Plan is intended to identify management, research and educational priorities to limit the spread of pine pitch canker in California. More information on pine pitch canker can be found via the Pine Pitch Canker Task Force: <a href="http://frap.cdf.ca.gov/pitch\_canker/">http://frap.cdf.ca.gov/pitch\_canker/</a>.
- The Cambria Forest Management Plan (Jones and Stokes) was developed in 2002 through a grant from the California Department of Forestry and Fire Protection (CDF) under Senate Bill No. SB 1712. The Plan provides an integrated framework of techniques for the management of mixed native Monterey Pine and Coastal Live Oak forest in the Cambria community and surrounding area.
- CAL FIRE Unit Fire Prevention Plan is prepared annually and details hazard and risk and mitigation measures planned for implementation by CAL FIRE resources.
- The Cambria Community Wildfire Protection Plan was developed by CAL Fire San Luis Obispo Unit with assistance by students at California Polytechnic University, San Luis Obispo. The Plan provides an analysis and evaluation of the current and prospective fire hazard, and suggested mitigation strategies for the community. The Plan takes into account environmental, socioeconomic and political factors that affect wildland fire management and safety of the Cambria Community. A series of detailed Fire Behavior analysis scenarios have been developed using computer modeling programs (FARSITE and WFDSS).

### **Relationship to Other Hazards – Cascading Effects**

The ensuing effects of wildland fires can be devastating beyond the obvious loss of vegetation and depletion of forest resources. Soil, waterways and land can sustain lasting damage from large intense fires. Extreme heat can cause soil to lose its ability to absorb moisture and subsequently support life. These soils quickly erode, and as a result, enhance siltation of rivers and streams, thus increasing flood potential, damaging marine life, and diminishing water quality. Further, the risk of landslide hazard increases once land has been depleted of vegetation. Calamitous debris flows can ensue.

Economic impacts can be severe. Wild fires can wreak havoc on homes, recreational assets and the tourist industry. Water, telephone and power utility companies have lost millions of dollars through both the direct and indirect effects of forest fires.

#### **Risk Assessment Conclusion**

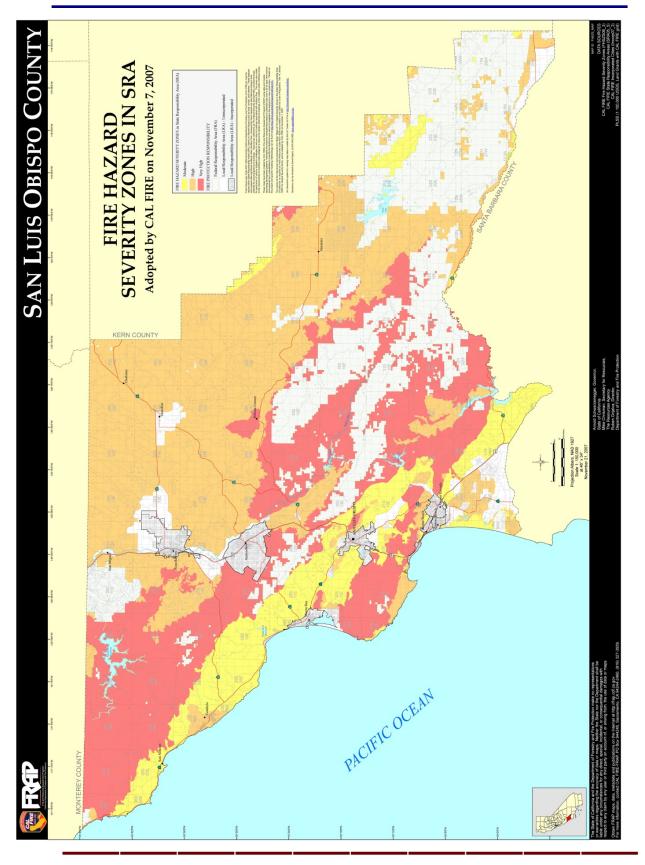
While in many locations throughout the planning area, the fuels and the topography may allow an unchecked wildfire to become a severe threat, the strong coastal weather influence diminishes this hazard much of the time. Therefore, factoring in the areas past fire history, the probability is rated as **HIGH.** Given the high risk for personal injury and loss of life to inhabitants, firefighters, and the potential economic losses, the severity is rated as **VERY HIGH**.



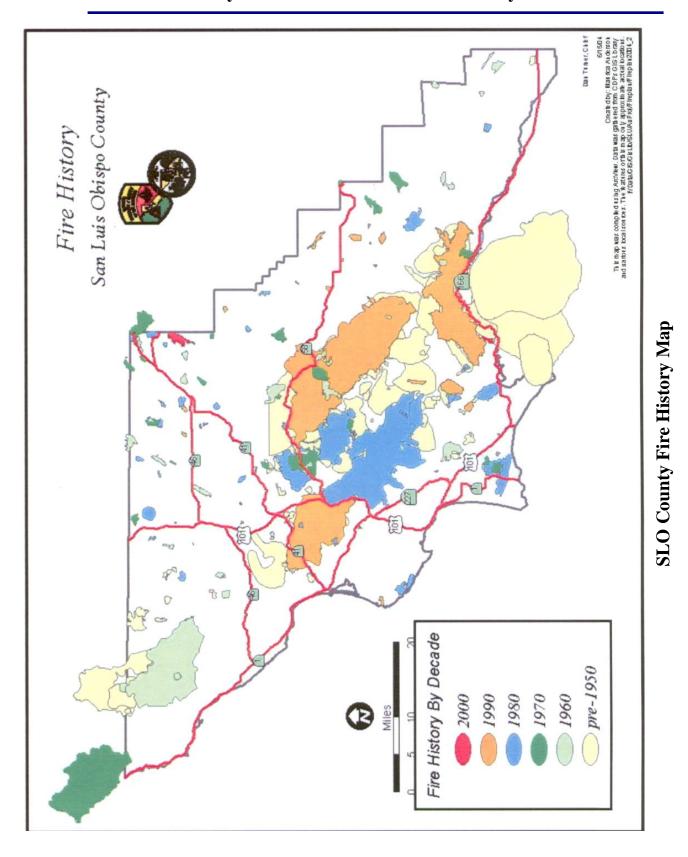
West Side of Bridge Street – Fuel Thinning Project Complete

Exact Location East side of Bridge Street – Project in Process





**SLO County Fire Hazard Severity Zones** 



**≻**Hazard: Tsunami

Severity: Medium	Probability: Low

#### **Hazard Definition**

A tsunami is a wave, or a series of waves, caused by a displacement of the ocean floor, usually by movement along a fault. In deep ocean water, tsunamis may travel as fast as 600 miles per hour. As they approach the shore, waves may increase in size and can cause extensive damage to coastal structures.

Withdrawal of the sea may be a precursor to the arrival of the first wave. After the first wave appears, waves may continue to arrive at internals for several hours. Intervals between successive waves may be similar. If the second wave appears 20 minutes after the first, it is likely that a third wave (if there is one) would arrive 20 minutes after the second. The first wave may not be the biggest. Yet the largest wave usually occurs within the first ten waves. The height the sea level rises above mean high tide line is referred to as runup.

The Davidson Seamount is located approximately 70 miles NW of Cambria, 4, 101 feet beneath the Pacific Ocean's surface. This mount rises 7,480 feet up from the ocean floor and is 23 miles long and 7 miles wide. A sub-surface landslide on this or any other nearby undersea feature would not allow adequate time to notify/warn Cambria or other area residents to evacuate. An undersea landslide here could be devastating to Cambria and the North Coast area.

#### History

Tsunamis have done great damage to communities located on the California Coast. A tsunami in 1964, following an earthquake in Alaska, killed 12 people in Crescent City and damaged piers and boats in Morro Bay as the bay emptied and filled every 15 minutes for over an hour.

On March 11, 2011, a great quake (9.0) struck northern Japan. Nearly 12 hours later, approximately \$500,000 in damage was recorded to piers and docks in Morro Bay as a result of a tsunami from this earthquake. At the Center of Coastal Marine Science in Morro Bay (near the back of the bay), an oceanographer recorded a 6 foot surge, while fishermen and Coast Guard personnel estimated an 8-9 foot surge at the Coast Guard pier near the entrance to the harbor.

### Tsunami History San Luis Obispo County

Location (Damage)	Incident Date	Intensity	Initial Description	
Morro Bay	1868	Unknown	Unknown	
Cayucos	4/16/1877	Height: 3.6 meters	California	
Morro Bay	1878	Unknown	Unknown - Reportedly overtopped	
			the sand spit in low areas	
Pismo Beach	1927	Height: 1.8 meters	California	
Avila Beach	4/1/1946	Height:1.3 meters	Tsunami source location: Alaska	
		Source magnitude:	Source event: E. Aleutian Islands	
		7.3 Ms	Travel time: 5 hours 36 minutes	
Morro Bay	4/1/1946	Height: 1.5 meters	Tsunami source location: Alaska	
		Source magnitude:	Source event: E. Aleutian Islands	
		7.3 Ms	Travel time: 5 hours 36 minutes	
Avila Beach	11/4/1952	Height: 1.4 meters	Tsunami source location: Russia	
		Source magnitude:	Source event: Kamchatka	
		8.2 Ms, 9 Mw	Travel time: 8 hours 36 minutes	
Pismo Beach	5/22/1960	Height: 1.4 meters	Tsunami source location: Chile	
		Source Magnitude:	Source event: Central Chile	
		9.5 Mw		
Avila Beach	3/28/1964	Height: 1.6 meters	Tsunami source location: Alaska	
and		Source magnitude:	Source event: Gulf of Alaska.	
Morro Bay		9.2 Mw	Travel time: 5 hours 10 minutes	
Morro Bay	3/11/2011	Height: 2.4 Meters	Tsunami source location: Japan	
		Source magnitude:	Source event: Tōhoku earthquake	
		9.0 Mw	Travel time: 10 hours 32 minutes	

#### **Hazard Potential**

As noted in the above table, the historic record shows that significant tsunamis typically have been generated from distant earthquake sources. It has been estimated that the 100 and 500 year tsunami runups in the study area are based on far-field source generation locations (such as the Aleutian or Chile-Peru Trenches). Estimated tsunami runup along the Cayucos/Morro Bay/Cambria coastline is approximately 9.5 feet to 24.2 feet for the 100 year and 500 year events, respectively. Those runups were calculated using astronomical high tides, and compare well with recorded tsunamis that have occurred in other locations along the California Coast. However, the worst case scenario would be if a tsunami occurred during a meteorological high tide (storm surge), which would add an estimated 14.5 feet (4.5 meters) to the runup values calculated. In this worst case scenario, the estimated tsunami runup for the 100 year and 500 year would be approximately elevation 24 and 39 feet above mean sea level, respectively. The primary effects of a tsunami can be widespread destruction and damage to coastal structures, roads, communications facilities and other infrastructure.

### **Plans and Programs**

A detailed Tsunami Response Plan for San Luis Obispo County is in place. The Plan uses as its basis all those coastal communities, recreation and developed areas with an elevation of 50 feet above mean sea level.

The West Coast/Alaska Tsunami Warning Center in Palmer, Alaska is responsible for issuing tsunami information for California, Oregon, Washington, and British Columbia. Tsunami generating incidents around the Pacific can be detected, pinpointed and magnitude computed in from 2 to 12 minutes depending upon the distance from the warning center. Depending on the incident magnitude a "Watch" "Advisory" or "Warning" will be transmitted to the Governor's Office of Emergency Services and then distributed through the County's Emergency Alerting System.

#### Risk Assessment

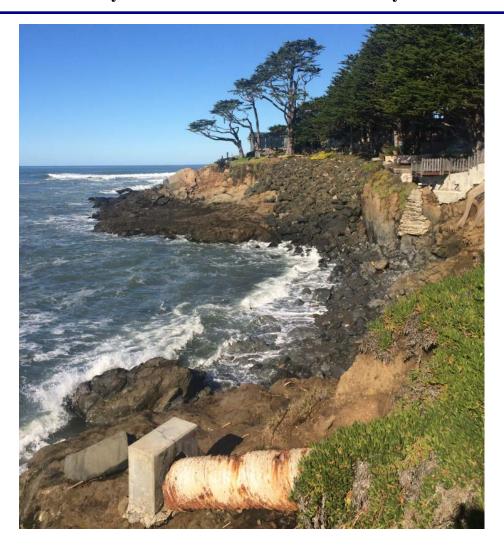
In general, much of the SLO County coast is protected by wide beaches, coastal dune, or sea cliffs that provide protection for coastal developments. Areas in the county most vulnerable to the tsunami hazard are well delineated in the County's Tsunami plan. Within the study area, the vulnerable locations include the following:

- Moonstone Beach, Shamel Park, Windsor Blvd, Park Hill and The West Ranch from the coastal terrace trail to the ocean
- Main Street from Highway 1 to Santa Rosa Creek Road
- Santa Rosa Creek Road to Coast Union High School
- Burton Drive and all side streets between Main Street to and including Village Lane
- The marine terrace between Marlbough and the ocean to Ardath

If the gradient is shallow, tsunami waves can travel upstream into river channels and creek beds causing flooding, as is the case with Santa Rosa Creek.

Damage to coastal structures would likely increase if the tsunami event were to coincide with a high tide, storm related waves, or large winter storm runoff. The Windsor Boulevard bridge over Santa Rosa Creek, just west of Moonstone Beach Drive would be in the direct wave pathway and would likely be severely damaged or destroyed by these waves. The adjacent residential neighborhoods would become isolated. The CCSD Wastewater Treatment Plant would be severely damaged or destroyed reducing or eliminating Cambria's WWTP ability to process wastewater.

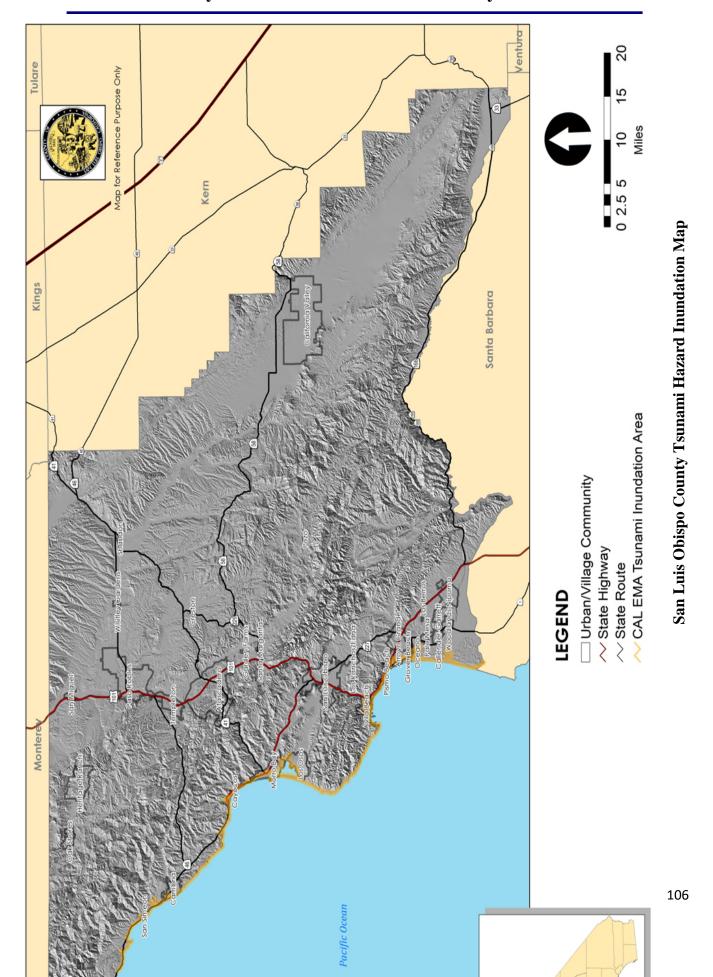
A San Luis Obispo County Tsunami Hazard inundation map is found at the end of this section.



Residential Structures in Tsunami Risk Area

### **Risk Assessment Conclusion**

Historically, the study area has had minimal threat from tsunami activity. Thus, the probability of this hazard event is deemed **LOW**. The combination of an accurate tsunami warning system, which will provide time for evacuations, and the limited exposed area justifies a **MEDIUM** severity rating for the Cambria Community Services District. Based on the fact that the Healthcare District does not have any critical infrastructure located on the coast, the severity rating for the Healthcare District is considered **LOW**.



### D. Jurisdiction Specific Hazard Ranking

Given the past history, the current conditions, and the overall life and property threat to the Districts, the Hazard Planning Group has deemed the probability and severity of each hazard as follows:

Cambria CSD	Earthquake	Wildland Fire	Extreme Weather	Flood	Landslides	Tsunami
Probability	Н	Н	Н	Н	L	L
Severity	Н	VH	M	M	L	M

L = Low, M= Medium, H = High, VH= Very High

Cambria CHD	Earthquake	Wildland Fire	Extreme Weather	Flood	Landslides	Tsunami
Probability	Н	Н	Н	Н	L	L
Severity	Н	VH	M	M	L	L

L = Low, M= Medium, H = High, VH= Very High

#### VII. VULNERABILITY ASSESSMENT

#### A. Overview

The vulnerability assessment is a summary of the hazard's impact to the community's vulnerable structures. Community assets and development trends will be identified and assessed with respect to the developed hazard profiles to ascertain the potential amount of damage that could ensue from each identified hazard. This section will include: 1) A description of the critical buildings and infrastructure within the study areas including future building and land use decisions. 2) A general description of the extent of each hazard's impacts to these vulnerable structures, 3) An estimate of the potential dollar losses to vulnerable structures.

It is important to note that as described in the Community Profile sections above, the community of Cambria covers just 8.5 square miles which is centrally located in the much larger 810 square mile Healthcare District. The Hazard Risk Assessments for the two Districts are the same. It should be noted however that the tsunami severity rating for the two districts is different. The Healthcare Districts critical infrastructure has no exposure to a Tsunami event while the exposure of the CCSD is considerable resulting in a Medium rating. The cascading impacts of a tsunami event could have an impact on the ability of the Healthcare Districts ability to deliver Emergency Medical Service resulting in a LOW severity rating.

#### B. DMA 2000 Requirements

DMA Requirement §201.6(c)(2)(ii):	The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.
DMA Requirement §201.6(c)(2)(ii)(A):	The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.
DMA Requirement §201.6(c)(2)(ii)(B): (c)(2)(i)(A)	The plan should describe vulnerability in terms of an estimate of the potential dollar losses to vulnerable structures identified in paragraph of this section and a description of the methodology used for estimating.
DMA Requirement §201.6(c)(2)(ii)(C): (c)(2)(i)(A)	The plan should describe vulnerability in terms of providing a general description of land uses and development trends within the community so that future mitigation options can be considered in future land decisions.
DMA Requirement §201.6(c)(2)(iii):	For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

#### C. Critical Facilities and Infrastructure

Critical facilities and infrastructure are those systems within each community whose incapacity or destruction would have a debilitating effect on the community's ability to recover subsequent to a major disaster. The following critical facility and infrastructure are categorized as follows:

- 1. **Emergency Services** for the health and welfare of the whole population (e.g., hospitals, police, fire stations, ambulance stations, emergency operations centers, evacuation shelters, schools).
- 2. **Lifeline Utility Systems** such as potable water, wastewater, oil, natural gas, electric power and communications systems.
- 3. **Transportation Systems** including railways, highways, waterways, airways and community streets to enable effective movement of services, goods and people.
- 4. **High Potential Loss Facilities** such as power plants, dams and levees.

## D. Jurisdictional Assets at Risk to Applicable Hazards

#### CAMBRIA COMMUNITY SERVICES DISTRICT ASSETS AT RISK

Critical Facilities and Infrastructure CCSD	Address/Location	Value: Building/ Content	Wildfire	Flood	Earthquake	Landslides	Extreme Weather	Tsunami
Wastewater Treatment Plant	5500 Heath Lane (Well)	\$181,700/ \$1,003,000		X	X		X	X
Wastewater Lift Station B4	1551 Green Street	\$350,000			X		X	
New Blower Building Structure	5500 Heath Lane	\$530,000/ \$20,000		X	X		X	X
Switchgear, Conduits, Wires, and Cables	5500 Heath Lane	\$20,000		X	X		X	X
Pine Knolls Water Tank	988 Manor Way	\$20,000/ \$15,000	X		X		X	
Vehicle Storage/Office Building	5500 Heath Lane	\$225,000/ \$150,000	X	X	X		X	X
Wastewater Lift Station 8	1090 Hillcrest Drive	\$150,000			X		X	
Old Ranch House	San Simeon Creek Road	\$250,000/ \$25,000	X		X		X	
Maintenance Storage Shop	5500 Heath Lane	\$30,000/ \$50,000		X	X		X	X
Booster Station	Charing Lane	\$50,000	X		X		X	
Fire Sub Station	6500 Heath Lane	\$100,000/ \$50,000		X	X		X	X
Wastewater Lift Station B1	2282 Burton Drive	\$300,000			X		X	
Fire Station	2850 Burton Drive	\$1,678,053/ \$250,000			X		X	

Wastewater Lift Station Street A	5101 Nottingham Drive	\$30,000			X	X	X
Pump House and Generator	Cambria Pines Road	\$150,000/ \$250,000	X		X	X	
Veterans Memorial Building	1000 Main Street	\$740,000/		X	X	X	
Wastewater Lift	212 DeVault Place	\$100,000 \$150,000			X	X	X
Station 4							
Yard and Shop	Old Rodeo Grounds	\$200,000/		X	X	X	X
	Road	\$150,000					
Pump House	San Simeon Creek Road	\$230,000/	X		X	X	
ss1-2-3		\$100,000					
Wastewater Lift	4849 Cabrillo Highway	\$300,000/			X	X	
Station B		\$100,000					
NPW Pumps and Flow Equalizer Vault and Meter	5500 Heath Lane	\$62,000		X	X	X	X
Wastewater Lift Station 9	6789 Moonstone Beach Boulevard	\$150,000			X	X	X
Wastewater Lift Station B2	3200 Eton Drive	\$300,000			X	X	
Secondary Clarifier Handrails	5500 Heath Lane	\$80,000		X	X	X	X
Wastewater Lift Station 3	2222 Green Street	\$350,000			X	X	
Standby Generator House	San Simeon Creek Road	\$50,000/ \$150,000	X		X	X	
District Office	1316 Tamson Drive	0/ \$320,000			X	X	
Well and Filter-	Santa Rosa Creek Road	\$200,000/		X	X	X	
SR 4		\$500,000					
3 Blowers	5500 Heath Lane	\$125,000			X	X	X
Water Yard	2031 Rodeo Ground	\$150,000/			X	X	
Booster Pump Station	Road	\$100,000					

BioSolids/	5500 Heath Lane	\$1,000,000		X	X	X	X
Screwpress							
Pump House	Stuart Street	\$80,000/	X		X	X	
		\$50,000					
Stuart Street Tank	1968 Richard	\$150,000/	X		X	X	
Site, radio bldg., and generator		\$100,000					
Wastewater Lift	190 Harvey Street	\$150,000			X	X	
Station A1							
Fiscalini Water	1000 Ellis Avenue	\$300,000	X		X	X	
Tank							
Leimert Tank	Cambria Pines Road	\$300,000	X		X	X	
Sustainable Water	990 San Simeon Creek	\$7,366,742	X	X	X	X	
Facility	Road						
<b>Total Values</b>		\$18,798,795 /\$3,483,000					

#### CAMBRIA COMMUNITY HEALTHCARE DISTRICT ASSETS AT RISK

	Address/Location	Value: Building/ Content	Wildfire	Flood	Earthquake	Landslides	Extreme Weather	Tsunami
Health Clinic Offices	2511 and 2515 Main Street, Cambria	\$670,136	X	X	X	X	X	
Administrative Office	1241 Knollwood Circle Suite 202, Cambria	\$95,000/ \$50,000			X	X	X	
Ambulance headquarters and ambulance station	2535 Main Street, Cambria	\$129,853/ \$250,000	X	X	X	X	X	
<b>Total Values</b>		\$894,989/ \$300,000.						

#### E. Methodology Used

To determine the number of critical structures and infrastructure at risk, a combination of field surveys, aerial photos and flood maps, and Google Earth software was used. The methodology used in preparing the Vulnerability Estimate consisted of determining the value of critical buildings and facilities from insurance property schedules. Critical infrastructure values were established by using actual replacement costs which were determined by recent comparable replacement projects.

#### F. Loss Estimations

Dollar losses to buildings and infrastructure vary depending upon the natural hazard occurring and the severity of the hazard. In general, earthquakes can extensively damage a wide area therefore critical structure and infrastructure losses should be estimated at a 100% value. Destruction from flooding takes place in specific areas and the damage is historically much less severe than that of an earthquake. Thus, the estimated loss as a result of flooding should be calculated at the 40% level. Damage resulting from Wildfires should be calculated at 25% of structural value. The vast majority of the community is at risk for wildfire. Extreme weather could impact any portion of the jurisdiction. Historical data indicates that these events are extremely localized and a 10% loss should be anticipated.

#### **G.** Development Trend Analysis

Building development within the Community Services District is overseen by San Luis Obispo County and the State Coastal Commission. Building size and height are regulated, and modified to specific district areas. The community is currently 45 percent developed. Water is one of the most important limiting factors to growth in Cambria. As a result of the building restrictions established in 1999, growth is severely restricted. The wait for a building permit for new construction is estimated at 20 years and is dependent upon the development of new water sources.

The CCSD has developed an innovative Buildout Reduction Plan (BRP) to ensure Cambria's small-town character, natural resources, and quality of life remains intact. The BRP's primary goals are to conserve water, minimize infrastructure impacts, and preserve the town's dwindling forests and open space. The BRP also satisfies the California Environmental Quality Act's requirement to mitigate any growth-inducing impacts of the Water Master Plan. The BRP seeks to retire or merge building sites that exceed the approved maximum 4,650 water connections. This includes multi-family connections and lots. It does not include commercial connections, which are limited to 20% of the residential water allocation in a given year. Unlike the CCSD, the Healthcare District has no authority or responsibility in the planning or construction of new buildings or infrastructure.

#### VIII. CAPABILITY ASSESSMENT

#### A. Overview

An important component of the Mitigation Strategy is an understanding of the resources available to each of the districts in order to mitigate the effects of each of the identified hazards. The Capability Assessment begins with a review of legal and regulatory capabilities, including ordinances, codes, and plans needed to address hazard mitigation activities. This Assessment also describes the administrative and technical capability available to each jurisdiction. The third component of the assessment is the District's fiscal capability to ensure the availability of financial resources to implement proposed mitigation strategies. The final part of the Capability Assessment is a review of the physical assets available to respond to the emergency needs of the community.

The following resources are available to the jurisdiction in order to mitigate the effects of the identified hazards:

#### B. Legal and Regulatory

Both the Districts and San Luis Obispo County (SLO) have in place the applicable Building Codes, Zoning Ordinances, Subdivision Regulations, and other regulatory development guides to provide specific support to hazard mitigation activities within the District as described below. Additionally, the General Plan, Multi-hazard Emergency Response Plans, and Post-Disaster Recovery Plans provide additional authority and are developed and maintained by the County.

- General Police Power-The general police power of both the County and the District is typically enacted and enforced with ordinances, which define, prohibit, regulate or abate acts, omissions, or conditions detrimental to the health, safety, and welfare of the people, and to define and abate nuisances, including public health nuisances.
  - Since hazard mitigation can be included under the police power as protection of public health, safety and welfare, district, towns, cities and counties may include requirements for hazard mitigation in local ordinances. Local governments may also use their ordinance making power to abate "nuisances," which could include any activity or condition making people or property more vulnerable to a hazard.
- California Building Code-Building Codes and Inspection Construction within the jurisdiction must meet the standards of the California Building Code. The area's Building and Planning Department reviews propose subdivisions and building plans, and conducts site inspections to ensure applicable codes are followed. Additionally, the District Fire Department reviews propose projects for enforcement of the California Fire Code.

- Land Use Regulations Land use regulatory powers include planning, enacting and enforcing zoning ordinances, floodplain ordinances, and land division controls. Local government can control the amount, timing, density, quality and location of new development in order to reduce a community's vulnerability to naturally occurring hazards. In conclusion, unsafe development in hazard prone areas can be prevented through local planning, zoning and development review by the County Planning and Building Department.
- Acquisition/Eminent Domain California legislation empowers cities, towns and counties
  to acquire property for public purpose by gift, grant, devise, bequest, exchange, purchase,
  lease or eminent domain. San Luis Obispo County can and has used acquisition as a tool for
  pursuing local mitigation goals. This reduces or eliminates the possibility of unsafe
  development occurring.
- Taxation- California law gives local government the power to levy taxes and special assessments. The power of taxation extends beyond merely the collection of revenue, and can have a profound impact on the pattern of development in the community. Communities in some states have the power to set preferential tax rates for areas which are more suitable for development in order to discourage development in otherwise hazardous areas. California does not allow cities or counties to increase tax rates beyond the base rate, except with voter approval. A community can pursue voter approval of a bond or similar mechanism to increase the property tax to be used for a specific purpose.
- **Spending/Budget** Local governments have the power to make expenditures in the public interest. Hazard mitigation principles can be made a routine part of all spending decisions made by the local government, including the adoption of budgets and a Capital Improvement Plan (CIP).
- County's Hazardous Waste Management Plan (HWMP) ensures compliance with hazardous materials regulations

#### C. Administrative and Technical

Both the CCSD and the CCHD have experienced and competent administrative and technical staff in place to expedite the mitigation actions identified in their areas of responsibility. Additionally, SLO County staff possesses technical expertise in the areas of planning, engineering, floodplain management, and geographic information systems (GIS) to support this Plan. Additionally, technical and administrative resources are available to assist the both the County and District staff in implementing the hazard mitigation goals.

#### D. Financial

In order to achieve the goals and objectives of the Mitigation Strategy, one or more of the following funding sources could be utilized: federal and state entitlements and grants, general fund, sales and property taxes, infrastructure user fees, impact fees, and new development impact fees. The Districts and the County have the necessary budgetary tools and practices in place to facilitate handling appropriate funds; however funding sources are very limited.

#### E. Political Will of the Community

Area residents are very knowledgeable about the extreme wild fire hazard potential impacts as the iconic Monterey Pines the community is famous for die off. Long term residents and many of the CCSD staff vividly recall the flooding events of 1995 and 2005. Work by the Fire Safe Focus Group has increased the familiarity with the concept of hazard mitigation as the recent fuel reduction projects have been well publicized. For these reason, the community fully supports hazard mitigation strategies and is open to implementing changes that will make their community and its residents safer.

#### F. Physical Assets

The study area has little first responder support due to its isolate location. North of the CCSD boundaries, there are no emergency first responders to provide aid except for the CAL FIRE station, staffed with one Engine, located in northern Cambria. Emergency, mutual aid, first responders from the East would come from Paso Robles and Templeton a 40+ minute response which could be interrupted by damage to Hwy. 46 West. Emergency first responders from the South would come from Cayucos, Morro Bay, and Los Osos and be 20+ minutes away. These are all small communities and may well be overwhelmed with their own local emergencies.

Ambulance resources in the County of San Luis Obispo are stretched thin, and may be unable to provide timely EMS transport response to Cambria due to local emergencies. The current CCHD Ambulance station is not located close to where the highest call volume occurs. The station is old/outdated and located in a flood and fire prone area, and is susceptible to mudslides.

#### **Fire Departments**

Fire prevention and suppression services are provided by the Cambria Fire Department (CBR) and the California Department of Forestry and Fire Protection (CAL FIRE). These Fire Departments provide fire suppression, emergency medical care, hazardous materials emergency intervention and control, water rescue, entrapment extrication, fire safety inspections of businesses, vacant lots and wildland areas, public fire safety education, fire investigation, and disaster management and planning. The Cambria Fire Department sponsors a robust Community Emergency Response Team (CERT) which is support by both CAL FIRE and the Healthcare District.

#### **Department Vehicles**

- 2 Type 1 Engines
- 1 Type 3 Water Tender
- 1 Command Vehicles
- 2 Utility Pick-ups
- 2 Rescue Boats
- 3 CERT Trailers

#### **Water and Wastewater Vehicles**

A full service water and waste water systems are in place. The mission of the Cambria Water Department is to provide high-quality water to the citizens of Cambria in a safe, environmentally sensitive and economical manner.

- 1 Vactor/Pump Unit
- 1 Dump Truck
- 9 Pickup Trucks
- 1 Step Van

#### **Cambria Community Healthcare District Vehicles**

- 2002 Ford Ambulance
- 2008 Sprinter Ambulance
- 2008 Sprinter Ambulance
- 2016 GMC Modular Ambulance
- 1999 Ford Expedition Command Vehicle

#### **Law Enforcement - SLO County Sheriff's Department**

The District does not provide law enforcement services; it is provide by the County. The Sheriff's Department has the capability to provide the necessary resources to assist the District in attaining mitigation goals.

#### **Emergency Medical Services Transport**

The District does provide Advanced Life Support, (Paramedic) level service delivered from first responding engine company personnel, however Paramedic Ambulance transportation is provided by the CCHD.

#### **Automatic and Mutual Aid Agreements**

The Cambria Community Service District Fire Department has an automatic aid agreement with CAL FIRE/SLO County Fire which staffs a year round station located at 6126 Coventry Lane within the District. The station is equipped with 2 fire engines and a rescue squad. The department also is a participant in the SLO County Mutual Aid Program.

The Healthcare District has an Automatic Aid Agreement with Monterey County, providing service into the south coastal zone of Monterey County along Highway 1 up to the community of Pacific Valley. The District is also a participant in the County of San Luis Obispo Medical Mutual Aid System. Ambulance crews will provide move up and coverage county-wide when other units in the County are busy. In return, non-agency ambulance units will provide coverage within the district boundaries as needed.

#### IX. MITIGATION STRATEGY

## A. DMA 2000 Requirements

<b>DMA Requirement</b> §201.6(c)(3)(i):	The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.
DMA Requirement §201.6(c)(3)(ii):	The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

#### B. Goals, Objectives and Mitigation Actions for Cambria Community Services District

Goal 1	Promote understanding and support for hazard mitigation by key stakeholders and the public within the Community of Cambria.
Objective 1	Educate key stakeholders and the public to increase awareness of hazards and opportunities for mitigating hazards.
Mitigation Action 1.A	Through newsletters, advertisements, speaking engagements and other public contacts, continue to educate the general public and key stakeholders on the issues, responsibilities, and current efforts and successes in the area of disaster preparedness as they impact the community.
Mitigation Action 1.B	Utilize the District, the Cambria CERT Team and the Cambria Fire Safe focus group social media venues to inform the public of hazard mitigation efforts, disaster preparedness messages, and emergency situation information.
Goal 2	Ensure that future development is protected from natural disasters.
Objective 2	Limit new development in hazardous areas. As permissible, link the CSD Buildout Reduction Program to eliminate potentially threatened building sites. Build to standards that will prevent or reduce damage from naturally occurring events.
Mitigation Action 2.A	Educate the planning staff, administrative staff and elected officials on the importance of keeping current on trends and developments in disaster preparedness.

3.51.1	
Mitigation Action 2.B	Encourage planning and administrative staffs to attend seminars and lectures on naturally occurring hazards so that they may better assist the governing bodies as they process future development.
Mitigation Action 2.C	In order to better protect life and property, continue to develop a more accurate and comprehensive series of maps and data sets that pertain to the District's earthquake, wildfire, tsunami and flood threats.
Goal 3	Build and support local capacity and commitment to minimize the District's vulnerability to potential naturally occurring hazards.
Objective 3.1	Improve existing capabilities of the CCSD staff to manage emergency situations.
Objective 3.2	Enhance the safety of CCSD residents and staff.
Objective 3.3	Improve the Districts communication systems so that in the event of a major emergency it will continue to operate effectively (redundancy and standby power).
Objective 3.4	Support the ARES/RACES communication system in the District Emergency Operations Center.
Objective 3.5	Maintain current fire department staffing levels as afforded by the SAFER grant currently in place.
Mitigation Action 3.1A	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.
Mitigation Action 3.1B	Update the existing District Operations Plans and supporting documents to ensure coordination with the County DOC/Emergency Plans and SOP's.
Mitigation Action 3.1C	Train all District department managers and key staff members on their roles and responsibilities in emergency management and the District EOC as outlined in independent study courses FEMA/National Incident Management System - ICS 100, 700, and 800.
Mitigation Action 3.1D	Continue to train all District first responders to the FEMA/National Incident Management System ICS 100, 200, 300, 700, and 800 levels.
Mitigation Action 3.1E	Develop an SOP, specific to each department, for guidance on response and coordination to major emergency events.

Mitigation Action 3.1F	Working with SLO County OES, increase participation by District staff members in disaster drills put on by the County.
Mitigation Action 3.1G	Review the current configuration of the District DOC at the fire station and make improvements as needed.
Mitigation Action 3.1H	Study ways to improve the existing automatic aid and mutual aid agreements with CAL FIRE and neighboring first responders.
Mitigation Action 3.2A	Continue to Support the development of the Community Emergency Response Team (CERT). Through newsletters, advertisements, speaking engagements and other public contacts, encourage the general public to take the basic CERT training.
Mitigation Action 3.2B	Train CERT team members in a Fire Watch program when a Red Flag warning is issued by the National Weather Service.
Mitigation Action 3.2C	In order to ensure that employees are available to assist during a major emergency, have all CCSD departments adopt a Family Support Plan. (Note: A model plan is available through SLO County OES.)
Mitigation Action 3.2D	Support the efforts of the CCSD utilities division to better protect public health by initiating a Watershed Survey.
Mitigation Action 3.2E	Increase the water storage of the District to ensure service for both fire protection and domestic consumption.
Mitigation Action 3.2F	Improve the "purple pipe" recycled water system along Moonstone Drive so that it may be utilized for fire protection.
Mitigation Action 3.2G	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.
Mitigation Action 3.3A	Develop a Master Plan for the District's communications systems.
Mitigation Action 3.3B	Update the District's radio system as outlined in the Communications Master Plan.

Mitigation Action 3.4A	Obtain and install another radio repeater, purchase additional radios support materials, and provide a standby power source, for the amateur radio group (ARES/RACES) to facilitate communications throughout the District.
Mitigation Action 3.5A	Study and pursue funding sources to staff the fire department to a level of 4 firefighters 24 hrs. X 365 days.
Mitigation Action 3.5B	Promote firefighter training and involvement in the California Mutual Aid System as single resources. (Note: Potential funding source for fire department staffing.)
Goal 4	Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to flooding.
Objective 4.1	Enhance the ability of community assets, particularly critical facilities, located in the 100-year floodplain to handle existing and projected flood levels.
Mitigation Action 4.1A	Maintain compliance with the National Flood Insurance Program (NFIP) requirements.
Mitigation Action 4.1B	Through Development Review process, restrict construction of essential service facilities in the 100-year flood plain.
Mitigation Action 4.1C	Continue to work cooperatively with the county, state, and federal flood related agencies for funding improvements through grant and agency programs
Mitigation Action 4.1D	Improve the drainage through the West Village through a combination of vegetation management and storm drain improvements along Highway 1 - East side.
Mitigation Action 4.1E	Automate the large flood pump at the North end of the West Village.
Mitigation Action 4.1F	Improve the storm drain collector behind the Shell gas station at North end of the West Village so that it no longer clogs/overflows.
Mitigation Action 4.1G	Continue water rescue training for all first responders.
Mitigation Action 4.1H	Write a grant to fund the purchase of a Personal Water Craft with rescue sled and related safety equipment and subsequently train first responders in its use.

Mitigation Action 4.1I	Purchase an inflatable rescue boat with motor to replace an existing unit that has reached the end of its recommended service life.
Goal 5	Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to wildland fires.
Objective 5.1	Continue the comprehensive approach to reducing the level of damage and losses due to wildland fires through vegetation management, code enforcement, GIS mapping, and planning processes.
Objective 5.2	Enhance the ability of CCSD administration and first responders to manage the impacts of a significant wildfire.
Objective 5.3	Improve forest health in order to minimize the impact of wildland fire.
Mitigation Action 5.1A	Prevent wildfires through code enforcement efforts by working with Engine Company Captains to increase the education and enforcement of California Health & Safety Code Section 14875 and International Property Maintenance Code Section 302, in collaboration with the CAL FIRE enforcement of Public Resource Code 4291.
Mitigation Action 5.1B	In order to assist fire prevention efforts and to better manage large fires when they occur, continue to improve GIS mapping and tracking efforts by gathering and maintaining relevant GIS data layers and imagery and utilizing the best available mapping applications and software.
Mitigation Action 5.1C	Collaborate with property owners and regulatory agencies in order to utilize prescribed fire on private and state owned lands in the County areas that surround the District.
Mitigation Action 5.1D	<ul> <li>Work with the CCSD, Fire Safe Council, Cambria Focus Group, and the Cambria Forest Committee to reduce the wildfire threat by: <ul> <li>Supporting the ongoing aggressive efforts to reduce the fuel load problem through a variety of methods such as chipping, forest remulching, salvage logging, and hand clearing.</li> <li>Assisting in identifying and prioritizing treatment areas.</li> <li>Investigating additional funding sources for fuel reduction and forest management projects.</li> <li>Updating the Community Wildfire Protection Plans (Both District and County).</li> <li>Enhancing collaboration amongst all fire agencies and stakeholders</li> </ul> </li></ul>

	Support the development of a biomass cogen plant.
Mitigation Action 5.2A	Obtain through Fire Safe Council grant funds, a large portable water tank to improve water supply and storage for wildland firefighting.  (FOL-DA-TANK style)
Mitigation Action 5.2B	Replace an existing Type 3 Water Tender which has reached the end of its service life. (Note: Unit may also provide a funding source when utilized in the CA mutual aid system)
Mitigation Action 5.2C	Purchase a Type 6 Fire Engine (Brush Unit) so as better provide initial response to wildfires in the District. (Note: Unit may also provide a funding source when utilized in the CA mutual aid system)
Mitigation Action 5.2D	Work with the District Water Department to improve fire flow, system reliability and redundancy, and improve the existing water supply in the District.
Mitigation Action 5.2E	Protect water conveyance system by reducing fuels adjacent to Covell and Fiscalini Ranch water tanks.
Mitigation Action 5.3A	Implement the Cambria Forest Management Plan and pursue funding to hire a professional Forest Ecologist to manage the forest.
Goal 6	Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to geological events (earthquakes and landslides).
Objective 6.1	Continue public education efforts so as to better prepare the citizens of the District from the effects of a significant geological event.
Objective 6.2	Enhance the ability of community assets, particularly critical facilities, to survive the impacts of a significant earthquake.
Objective 6.3	Enhance the ability of CCSD administration and first responders to manage the impacts of a significant earthquake.
Mitigation Action 6.1A	Perform seismic safety studies on the District's critical public safety facilities.

Goal 8	Minimize the level of damage and losses to people, existing and future critical facilities and infrastructure due to a tsunami event.
Mitigation Action 7.2A	Train four first responder to the Haz Mat Technician Level (CSTI)
Mitigation Action 7.1B	Continue efforts to educate applicable employees on the handling, use, storage and disposal of hazardous materials utilized in the workplace.
Mitigation Action 7.1A	Educate community members on the dangers associated with household hazardous materials including proper storage techniques.
Objective 7.2	Improve emergency response efforts in the control and clean-up of accidental spills and releases.
Objective 7.1	Continue efforts to manage the use, sale, distribution and disposal of hazardous materials in the District.
Goal 7	Limit risk to, and impacts from hazardous materials spills, intentional discharges, illegal disposals, transportation accidents, or system failures.
Mitigation Action 6.3C	Annually send two District management employees (non-fire) to the California Specialized Training Institute (CSTI) Introduction to Earthquake Management Course.
Mitigation Action 6.3B	Purchase a heavy rescue cache/trailer for earthquake preparedness (tools, equipment, and supplies).
Mitigation Action 6.3A	Train Fire Department staff in the California State Fire Marshal's Rescue System 1 and 2 programs.
Mitigation Action 6.2	Continue to support the work of the District in replacing sewer and water lines that are most vulnerable to an earthquake or mudslide.
Mitigation Action 6.1B	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.

Objective 8.1	Continue public education efforts so as to better prepare the citizens and visitors of the District from the effects of a significant tsunami event.
Objective 8.2	Enhance the ability of community assets, particularly critical facilities, to survive the impacts of a significant tsunami event.
Mitigation Action 8.1A	Continue working with the Cambria Tourism Board in the distribution of the existing tsunami public education pamphlet to the motel visitors along Moonstone drive.
Mitigation Action 8.2A	Working with SLO County OES, and the California Coastal Commission post evacuation route signage along Moonstone Drive, Windsor and Fiscalini Ranch areas.

C. How Cambria Community Services District Mitigation Goals Address Existing and New Buildings and Infrastructure

#### **Existing Buildings and Infrastructure:**

MITIGATION GOALS	EXISTING BUILDINGS AND INFRASTRUCTURE						
	Electrical and Power Infra- structure	Water and Wastewater Management	Communi- cation Facilities	Critical Roads and Bridges	Essential Service Facilities	Public Structures	
Goal 1-General Mitigation: Promote understanding of hazard mitigation	X	X	X	X	X	X	
Goal 2-General Mitigation: Protect future development.	X	X	X	X	X	X	
Goal 3-General Mitigation: Build local capacity and commitment.	X	X	X	X	X	X	
Goal 4-Flood: Minimize damage due to flooding.	X	X		X	X	X	
Goal 5-Wildfire: Minimize the level of damage and losses due to wildfires.	X	X	X		X	X	
Goal 6-Earthquake: Minimize the level of damage and losses to due to geological events.	X	X	X	X	X	X	
Goal 7 –Hazardous Materials: Limit risk from hazardous materials spills.		X					
Goal 8-Tsunami: Minimize damage and loss of life from a tsunami event.	X	X		X	X	X	

## **New Buildings and Infrastructure:**

MITIGATION GOALS	N	NEW PROJECTS/BUILDINGS AND INFRASTRUCTURE				
	Residential Subdivisions	Various mixed use projects (residential and commercial)	Ag Clusters (residential, open space, and Ag uses)	Commercial and Industrial Projects	Essential Service Facilities	Public Structures
Goal 1-General Mitigation: Promote understanding of hazard mitigation	X	X	X	X	X	X
Goal 2-General Mitigation: Protect future development.	X	X	X	X	X	X
Goal 3-General Mitigation: Build local capacity and commitment.	X	X	X	X	X	X
Goal 4-Flood: Minimize damage due to flooding.	X	X	X	X	X	X
Goal 5- Wildfire: Minimize the level of damage and losses due to wildfires.	X	X	X	X	X	X
Goal 6- Earthquake: Minimize the level of damage and losses to due to geological events.	X	X	X	X	X	X

Goal 7 – Hazardous Materials: Limit risk from hazardous	X	X	X	X	X	X
materials spills.						
Goal 8- Tsunami: Minimize damage and loss of life from a tsunami event.	X	X	X	X	X	X

## D. Goal, Objectives and Mitigation Actions for Cambria Community Healthcare District

Goal 1	Promote understanding and support for hazard mitigation by key stakeholders and the public within the Cambria Community Healthcare District.
Objective 1	Educate key stakeholders and the public to increase awareness of hazards and opportunities for mitigating hazards.
Mitigation Action 1.A	Through newsletters, advertisements, speaking engagements and other public contacts, continue to educate the general public and key stakeholders on the issues, responsibilities, and current efforts and successes in the area of disaster preparedness and public health as they impact the Healthcare District.
Mitigation Action 1.B	Utilize the Cambria Community Services District, Cambria Community Healthcare District, and the Cambria CERT Team social media venues to inform the public of hazard mitigation efforts, disaster preparedness messages, and emergency situation information as relating to emergency medical services and public health.
Goal 2	Build and support local capacity and commitment to minimize the Healthcare District's vulnerability to naturally occurring hazards.
Objective 2.1	Improve existing capabilities of the CCHD staff to manage emergency situations.
Objective 2.2	Enhance the safety of Healthcare District's staff.
Objective 2.3	Improve the Healthcare District's communication systems so that in the event of a major emergency it will continue to operate effectively (redundancy and standby power).
Mitigation Action 2.1A	Update the existing Healthcare District's Operations Plan and supporting documents to ensure coordination with the Cambria Community Services District DOC, SLO County EOC, and County Emergency Plans.
Mitigation Action 2.1B	Train all Healthcare District board members and key staff members on their roles and responsibilities in emergency management and in both the CCSD's DOC and the SLO County EOC as outlined in independent study courses FEMA/National Incident Management System - ICS 100, 700, and 800.
Mitigation Action 2.1C	Continue to train all Healthcare District first responders to the FEMA/National Incident Management System ICS 100, 200, 300, and 700 levels.

Mitigation Action 2.1D	Working with SLO County OES, increase participation by District staff members in disaster drills put on by the County.
Mitigation Action 2.1E	Improve the existing automatic aid and mutual aid agreements.
Mitigation Action 2.2	In order to ensure that employees are available to assist during a major emergency, have the CCHD adopt a Family Support Plan. (Note: A model plan is available through SLO County OES.)
Mitigation Action 2.3A	Develop a Master Plan for the Healthcare District's communications systems.
Mitigation Action 2.3B	Update the Healthcare District's radio system as outlined in the Communications Master Plan once developed.
Goal 3	Reduce the general public's vulnerability to healthcare emergencies caused by naturally occurring and manmade hazards.
Objective 3.1	Improve ambulance response times.
Objective 3.2	Enhance the safety of Healthcare District residents.
Objective 3.3	Promote wellness and accident prevention.
Objective 3.4	Improve ambulance, command vehicle, and emergency equipment reliability.
Mitigation Action 3.1A	Analyze call volume, location and responses times; consider relocating the current ambulance station to improve response times to high call volume areas.
Mitigation Action 3.2A	Through newsletters, advertisements, speaking engagements and other public venues, continue to support the Community Emergency Response Team (CERT) by encouraging the general public to take the basic CERT training course.
Mitigation Action 3.2B	Continue to Support the development of the Community Emergency Response Team (CERT) by assisting in training and drills.
Mitigation Action 3.3A	Continue the Healthcare Districts participation in the "Vial of Life" program

Mitigation Action 3.3B	Expand public health education courses and programs such as "Hands Only CPR" and AED training, and First Aid programs to the public.
Mitigation Action 3.3C	Participate in the AED - Pulse Point program.
Mitigation Action 3.3D	Initiate annual mass inoculation (flu shot)/POD event similar to that put on by SLO County Public Health.
Mitigation Action 3.4A	Develop a capital improvement program and schedule to replace emergency response vehicles on a regular basis.
Mitigation Action 3.4B	Develop a Capital Improvement Program and schedule to replace high value (\$10K+) emergency response equipment on a regular basis.
Goal 4	Minimize the level of damage and losses to existing critical facilities and equipment due to flooding.
Objective 4.1	Enhance the ability of the District's critical facilities and equipment to survive the impacts of a significant flooding event.
Mitigation Action 4.1A	Study feasibility of moving ambulance station to flood free zone.
Goal 5	Minimize the level of damage and losses to existing critical facilities and equipment due to wildland fires.
Objective 5.1	Enhance the ability of the District's critical facilities and equipment to survive the impacts of a significant wildland fire.
Mitigation Action 5.1A	Reduce the wildland fire fuel loading directly behind the Main Street ambulance headquarter station.
Goal 6	Minimize the level of damage and losses to existing and critical facilities and equipment due to geological events (earthquakes, landslides, and mudslides).
Objective 6.1	Study feasibility of moving ambulance station to mudslide free zone.

E. How Cambria Community Services District Mitigation Goals Address Existing and New Buildings and Infrastructure

MITIGATION GOALS	EXISTING BUILDINGS AND INFRASTUCTURE				
	Communication Facilities (Station and Office)	Essential Service Facilities (Ambulance Station)	Public Structures (District Office)		
Goal 1-General Mitigation: Promote understanding of hazard mitigation	X	X	X		
Goal 2-General Mitigation: Build local capacity and commitment.	X	X	X		
Goal 3-General Mitigation: Reduce Vulnerability	X	X	X		
Goal 4-Flood: Minimize damage due to flooding.		X			
Goal 5-Wildfire: Minimize the level of damage and losses due to wildfires.	X	X			
Goal 6-Earthquake: Minimize the level of damage and losses to due to geological events.	X	X	X		

**New Buildings and Infrastructure:** The Healthcare District has no responsibility or authority in the planning or development of new buildings or infrastructure.

#### X. MITIGATION ACTION IMPLEMENTATION

#### A. DMA 2000 Requirements:

DMA Requirement §201.6(c)(4)(i):	The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.
DMA Requirement §201.6(c)(4)(ii):  improvement	The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital plans, when appropriate.
DMA Requirement §201.6(c)(3)(iii):	The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.
DMA Requirement §201.6(c)(3)(iv)	For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

#### **B.** Prioritization of Mitigation Actions

The Mitigation actions were prioritized using a system which is outlined below. This system factored in the following components: 1)Probability of Occurrence, 2) Effectiveness of Mitigation Actions, 3)Practicality of mitigation action for the jurisdiction based on the STAPLE+E criteria of Social, Technical, Administrative, Political, Legal, Economic and Environmental components. This gave rise to the development of an overall relative risk value that resulted in ratings of HIGH, MEDIUM and LOW for each of the mitigation actions. The resultant prioritization was presented to key stakeholders and lengthy discussions were held to ensure that the results were indeed applicable to the priorities and capabilities of the jurisdictions' served.

#### **Sample Mitigation Action Prioritization Worksheet**

Mitigation	Probability of	Effectiveness	Practicality	Relative Risk
Action	Associated	of Mitigation	(based on	(Product of Risk
	Threat	Action	STAPLE+E	Components)
	Occurrence	Minimal=1	criteria)	
	Low=1	Moderate=2	Low=1	
	Med.=2	High=3	Medium=2	
	High=3		High=3	
1.A	3	2	3	18

In assessing and evaluating each strategy, the following factors were considered:

- The benefit justified the cost
- The availability of financial resources
- The availability of staff resources
- Impact on participating jurisdiction functions
- Strategies reflect the goals and objectives

#### C. Action Plan

Once the Multi-Jurisdictional Hazard Mitigation Plan has received formal adoption by the both the Cambria Community Services District Board of Directors, the Healthcare District Board of Directors, the State Hazard Mitigation Office and FEMA, the following action plan, agreed upon by the Hazard Mitigation Planning Group, will be utilized to ensure the Plan is implemented and remains an active and relevant document. Actual implementation may be dependent upon funding availability.

# ACTION PLAN FOR 2017 MITIGATION ACTIONS FOR CAMBRIA COMMUNITY SERVICES DISTRICT

MITI	GATION ACTION	IMPLEMENTATION STRATEGY				
ID	DESCRIPTION	RESPONSIBLE DEPARTMENT	FUNDING SOURCES	COMPLE- TION DATE	PRIORITY	
1.A	Educate public and Stakeholders about opportunities for mitigating hazards	Fire Department - Lead All Support	None Required	Ongoing	Medium	
1.B	Utilize Social Media to promote disaster preparedness developments	Fire Department - Lead All support	None Required	Ongoing	Low	
2.A	Continuing Education Of Elected Officials	Fire Department - Lead All support	None Required	Ongoing	Medium	
2.B	Continuing Education Of CCSD Staff	Administration- Lead All support	General Funds	Ongoing	Medium	
2.C	Improve GIS Capabilities	Administration- Lead All support	General Funds	Ongoing	Medium	
3.1A	Develop Continuity of Operations Plan	Fire Department - Lead All support	General Funds	Ongoing	High	
3.1B	Update Emergency Operations Plans	Fire Department- Lead All support	None Required	01/01/18	Medium	
3.1C	DOC Roles and Responsibility training - All Staff	Fire Department - Lead All support	None Required	Ongoing	High	
3.1D	DOC Roles and Responsibility training - Fire Depart.	Fire Department	None Required	Ongoing	High	
3.1E	SOP Development (Emergency Response)	All Departments Fire Department support	None Required	01/01/18	High	

3.1F	Disaster Drills	All Departments	None Required	On Going - 1 Each Year	Medium
3.1G	DOC Improvements	Fire Department	General Funds	01/01/18	Medium
3.1H	Mutual/Auto Aid	Fire Department	None Required	01/01/18	Low
3.2A	Support CERT development	Fire Department Admin support	None Required	Ongoing	Medium
3.2B	CERT Fire Watch	Fire Department	None Required	07/01/17	High
3.2C	Adopt Family Support Plan	All Departments Fire Support	None Required	01/01/14	Medium
3.2D	Initiate Watershed Sanitary Survey	Wastewater	General Fund and Grants	07/01/17	Medium
3.2E	Water Storage	Water	General Fund and Grants	Ongoing	Medium
3.2F	Fire Flow Improvements "Purple Pipe"	Water and Fire Department	General Fund and Grants	Ongoing	Low
3.2G	Wastewater System Improvements	Wastewater	General Fund and Grants	Ongoing	Medium
3.3A	Master Plan - Communications System	Admin Fire Dept. Support	Grants and General Funds	09/01/17	Medium
3.3B	Radio System Improvements	Admin Fire Dept. Support	Grants and General Funds	07/01/18	Medium
3.4	ARES/RACES Communication Systems	Fire Department	Grants and General Funds	07/01/18	Medium
3.5A	Fire Department Staffing	Fire Department Admin support	Grants and General Funds	07/01/17	High

3.5B	Fire Department Training	Fire Department	None Required	07/01/17	High
4.A	NFIP	SLO County	None Required	Ongoing	Low
4.B	Development in Flood Plain	SLO County	None Required	Ongoing	Low
4.C	Flood Improvements	Administration - All support	Grants and General Funds	Ongoing	High
4.D	Water Shed Study	Wastewater	Grants and General Funds	10/01/18	Medium
4.E	West Village Flooding	SLO County	Grants and General Funds	10/01/17	High
4.F	Water Rescue Training	Fire Department	Grants and General Funds	Ongoing	Medium
4.G	Water Rescue Equipment	Fire Department	Grants and General Funds	10/01/17	Medium
4.H	Water Rescue Boat	Fire Department	Grants and General Funds	10/01/17	Medium
5.1A	Code Enforcement	Fire Department	None Required	On Going	High
5.1B	GIS - Fire/Fuels Management	Fire Department SLO County Fire support	None Required	On Going	High
5.1C	Prescribed Fire	Fire Department	None Required	On Going	High
5.1D	Fuel Reduction Efforts	Fire Department	None Required	On Going	High
5.2A	Fire Water Portable Tank	Fire Department	Fire Safe Grant	7/01/17	High
5.2B	Type 1 Water Tender	Fire Department	Grant	7/01/18	High
5.2C	Type 6 Fire Truck	Fire Department	Grant	7/01/18	High

5.2D	Improve Fire Flow	Fire Department	Grant and General Funds	On Going	High
5.2E	Protect Water Tanks Covell - Fiscalini	Fire Department	Fire Safe Grant	7/01/17	High
5.3A	Forest Management Plan	Administration	Grant and General Fund	6/01/17	High
6.1A	Seismic Safety Studies	Administration/ Fire Department	Grants and General Funds	09/01/17	High
6.1B	Increase Public Awareness	Fire Department All Support	None Required	Ongoing	Medium
6.2	Vulnerable Asset Protection	Wastewater and Water	General Fund	Ongoing	Medium
6.3A	Heavy Rescue Training	Fire Department	Grant	On Going	Medium
6.3B	Heavy Rescue Equipment	Fire Department	Grant	01/01/19	Medium
6.3C	CSTI - Earthquake Management Course	Wastewater, Water and Administration	CSTI Grant	On Going, 2 each year	Medium
7.1A	Haz Mat Public Awareness	Fire Department SLO County OES	None Required	On Going	Medium
7.1B	Haz Mat-CCSD Staff Awareness	Fire Department SLO County OES	None Required	On Going	Medium
7.2	Haz Mat Training	Fire Department	CSTI Grant	On Going - 2 Each Year	High
8.1A	Tsunami Warning - Evacuation Signs	Fire Department SLO County OES	Grant	01/01/19	Medium
8.1B	Public Awareness - Tsunami Threat	Fire Department and Tourism Board	None Required	On Going	Medium

## ACTION PLAN FOR 2017 MITIGATION ACTIONS FOR CAMBRIA COMMUNITY HEALTHCARE DISTRICT

MITIGATION ACTION		IMPLEMENTATION STRATEGY			
ID	DESCRIPTION	RESPONSIBLE DEPARTMENT	FUNDING SOURCES	COMPLE- TION DATE	PRIORITY
1.A	Educate public and Stakeholders about opportunities for mitigating Public Health hazards	Healthcare District BOD and Administration	None Required	Ongoing	Medium
1.B	Utilize Social Media to promote Public Health	Administration	None Required	Ongoing	Low
2.1A	Update Emergency Operations Plans	Administration	None Required	01/01/18	Medium
2.1B	DOC Roles and Responsibility training	Healthcare District BOD and Administration	None Required	Ongoing	High
2.1C	ICS Training	EMS Staff	None Required	Ongoing	High
2.1D	Disaster Drills	All	None Required	Ongoing	Medium
2.1E	Auto/Mutual Aid	Administration	None Required	9/1/17	Low
2.2	Adopt Family Support Plan	Administration	None Required	06/01/18	Low
2.3A	Master Plan - Communications System	Administration	Grants and General Funds	09/01/18	Medium
2.3B	Radio System Improvements	Administration	Grants and General Funds	01/01/19	Medium
3.1A	Station Location Study	Administration	None Required	01/01/18	High

3.2A	Promote CERT Program	Administration	None Required	Ongoing	Medium
3.2B	Support CERT Program	EMS Staff	None Required	Ongoing	Medium
3.2C	Public Outreach	All	None Required	Ongoing	Medium
3.3A	Vial of Life	Administration and EMS Staff	General Funds	Ongoing	Medium
3.3B	CPR/AED/ 1st Aid	Administration and EMS Staff	None Required	Ongoing	Medium
3.3C	Pulse Point Program.	Administration and EMS Staff	None Required	01/01/20	Medium
3.3D	POD/Mass Inoculation	Administration and EMS Staff	None Required	09/01/17	Medium
3.4A	Ambulance Capital Improvement Plan	Administration	Grants/ General Funds	10/01/17	High
3.4 B	Emergency Equipment Improvement Plan	Administration	Grants/ General Funds	10/01/17	High
4.1A	Feasibility Study to relocate ambulance station	Administration	Grants and General Funds	01/01/18	High
5.1A	Wildfire Fuel Reduction	Administration	Grants and General Funds	07/01/17	High
6.1	Feasibility Study to relocate ambulance station	Administration	Grants	01/01/18	High

#### D. Implementation Through Existing Plans and Programs

San Luis Obispo County currently uses comprehensive land use planning, and building codes to guide and control development within the Cambria Community Services District. This Hazard Mitigation Plan will be made available to those responsible for the County's General Plan development mechanisms to ensure that consistency is maintained. The same holds true whenever substantive changes are made.

Both Districts have a number of policies and procedures, purchasing guidelines, and capital improvement procedures currently in place. The Mitigation Actions outlined in this Plan will be incorporated into those documents under the direction of each CCSD General Manager and the CCHD Administrator.

Mitigation Actions have been assigned to a number of specific individuals, departments and County jurisdictions. These individual actions will fall under the general administrative oversight of the governing body. Should technical expertise not be available to these individuals or departments, the County Office of Emergency Services is committed to, when possible, coordinating the resources of the County to assist with implementation of the mitigation actions.

The general administrative oversight of this Hazard Mitigation Plan rests with the Cambria Community Services District General Manager and the Cambria Community Healthcare District Administrator.

#### **E.** Continued Public Involvement

Both the Cambria Community Services District and the Cambria Community Healthcare District understands the importance of involving the public in the ongoing Hazard Mitigation Plan review and updating process. Resultantly, the following actions will be taken:

- The CCSD and CCHD websites will announce the fact that a Local Hazard Mitigation Plan is available for viewing and comment.
- A hard copy will be available at the CCSD office for public viewing as requested.

#### F. Plan Monitoring, Evaluating and Updating

## DMA Requirement $\S 201.6(d)(3)$ :

A local jurisdiction must review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit if for approval within 5 years in order to continue to be eligible for mitigation project grant funding.

In order to continue to be an effective representation of Cambria Community Services District's and Cambria Community Healthcare District's overall strategy for reducing its risks from natural hazards, the mitigation plan must reflect current conditions. Monitoring and evaluating the plan will occur annually to make certain that the goals and objectives for the community and participating jurisdictions are current and mitigation activities are being carried out.

To ensure that regular review and update of this Hazard Mitigation Plan takes place, the Cambria Community Services District will communicate with Hazard Mitigation Planning Group members annually to see if their plan components are up-to-date and meet current realities.

The MJHMP Planning Group will review each goal and objective to evaluate its:

- Relevance to current and evolving situations within each District
- Consistency with changes in local, state and federal policy

The planning group will review the risk assessment component of the plan to ascertain if the information needs to be updated or modified. They will report on the:

- Current status of their mitigation actions
- How coordination efforts are proceeding
- Implementation processes that worked well
- Any difficulties encountered
- Any strategies in need of revision

If the plan review leads the Hazard Mitigation Planning Group to determine that modifications are necessary, then the CCSD or the CCHD can initiate a plan amendment.

#### XI. ATTACHMENTS

ATTACHMENT A: ACRONYMS

Acronym	Definition
CGS	California Geological Survey
Cal EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAL FIRE	California Department of Forestry and Fire Protection
CCHD	Cambria Community Healthcare District
CCSD	Cambria Community Services District
CDF	California Department of Forestry and Fire Protection
CDHS	California Department of Health Services
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CGS	California Geological Survey
CISN	California Integrated Seismic Network
CSSC	California Seismic Safety Commission
DFG	State Department of Fish and Game
DHS	Department of Homeland Security
DWR	Department of Water Resources
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
FMP	Floodplain Management Plan
FRAP	Fire and Resource Assessment Program
GIS	Geographic Information System
HMGP	Hazard Mitigation Grant Program
LHMP	Local Hazard Mitigation Plan
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Services
OES	Governor's Office of Emergency Services
SEMS	Standardized Emergency Management System
SFHA	Special Flood Hazard Area
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
WWTP	Wastewater Treatment Plant

Multi-Jurisdictional Hazard Mitigation Plan for

**Cambria Community Services and Cambria Community Healthcare Districts** 

**ATTACHMENT B:** PRELIMINARY NOTICE TO NEIGHBORING JURISDICTIONS

November 1, 2016

Dear Neighboring Jurisdiction:

The Cambria Community Service District will be constructing a Local Hazard Mitigation Plan in

order to uncover effective ways to reduce the jurisdiction's vulnerability to naturally occurring

hazards. A Hazard Mitigation Planning Group has been formed comprised of community

stakeholders. We will be holding a kick-off meeting on Monday, November 14<sup>th</sup> at the Cambria

Fire Station at 2850 Burton Drive in Cambria. We invite you to attend this meeting and

participate in this process.

For more information and comments please contact the District's consultant for the project,

Bob Neumann at 805-441-5469 or via email at bob@cafive.com.

Thank You,

Robert F Neumann and Sheri Eibschutz

Category Five Professional Consultants, Inc

Category Five Professional Consultants, Inc. - MJHMP for Cambria Community Services and Cambria Community Healthcare Districts ~ June 2017

Both the preliminary notice in Attachment B above and the Public Forum notice in Attachment C below were sent to the following neighboring agencies:

Ms. Renee Osborne Administrator, San Simeon CSD 111 Pico Avenue San Simeon, CA 93452

Ms. Mary Levkoff Director, Hearst Castle Museum 750 Hearst Castle Road San Simeon, CA 93452-9741

Mr. Robert Baird Forest Supervisor - Los Padres National Forest 6750 Navigator Way, Suite 150 Goleta, CA 93117

Mr. Ron Alsop - Emergency Services Manager SLO County Office of Emergency Services 1055 Monterey St. Suite D430 San Luis Obispo CA 93408 Multi-Jurisdictional Hazard Mitigation Plan for

**Cambria Community Services and Cambria Community Healthcare Districts** 

ATTACHMENT C: PUBLIC FORUM NOTICE TO NEIGHBORING JURISDICTIONS

February 20, 2017

Dear San Simeon Community Services District:

The Cambria Community Service District has joined a nationwide effort to find effective ways

to reduce its vulnerability to naturally occurring hazards. In doing so, the District has just

completed a Local Hazard Mitigation Plan. An Administrative Draft is now posted on the

District's website for review by the general public and neighboring agencies. This can be

found at www.cambriacsd.org.

On March 2 at 4 PM, a Public Forum will be held at the Cambria Veterans Hall at 1000 Main

Street. At the forum, an overview of the Hazard Mitigation Plan will be presented along with

the proposed mitigation goals, objectives and actions that are outlined in the plan. The

public will have an opportunity to comment on the proposed plan. As a neighboring agency,

we also invite your review and comments on this important emergency planning tool for the

District.

For more information and comments please contact the District's consultant for the project,

Bob Neumann at 805-441-5469 or via email at bob@cafive.com.

Thank You,

Robert F. Neumann

Category Five Professional Consultants, Inc.

Category Five Professional Consultants, Inc. - MJHMP for Cambria Community Services and Cambria Community Healthcare Districts ~ June 2017

#### ATTACHMENT D: PRESS RELEASES TO GENERAL PUBLIC

The following notices were published in the Cambrian newspaper on February 22and on March 1, 2017.

#### THE CAMBRIAN

FEBRUARY 22, 2017 8:48 AM

# Cambria forum on Local Hazard Mitigation Plan set for March 2

BY KATHE TANNER

ktanner@thetribunenews.com

Cambrians can learn more Thursday, March 2, about their community's hazards and what officials and individuals should be doing now to help mitigate or eliminate disasters later.

Consultants for the <u>Cambria Community Services District</u> will hold a public forum at 4 p.m. March 2 at the Veterans Memorial Building, 1000 Main St., on the district's draft Local Hazard Mitigation Plan.

The plan's goal is to reduce the community's risk to naturally occurring disasters. The forum's goal is to explain the document and get the public's thoughts and questions about it. People will be able to comment on the report through March 22.

Once the plan is complete and approved by a variety of agencies, the plan will enable the services district to apply for and potentially receive federal mitigation funds after such disasters, or in some cases, before the disasters strike.

The detailed report of more than 120 pages was prepared by <u>Category Five</u> <u>Professional Consultants</u>. They described the community, profiled hazards, assessed vulnerabilities and mitigation strategies, listed which agencies have

jurisdiction over what, and described how mitigations could be implemented ahead of time.

In the end, they acknowledge, how much gets done when is up to how much money is available and the political will of the people.

A draft copy of the plan is to be posted soon at <a href="www.cambriacsd.org">www.cambriacsd.org</a>. For questions and or comments call fire Chief William Hollingsworth at 805-927-6240, or email the consultants at: <a href="mailto:bob@cafive.com">bob@cafive.com</a>.

MARCH 1, 2017 10:19 AM

# Local Hazard Mitigation Plan meeting slated

BY KATHE TANNER

ktanner@thetribunenews.com

Consultants will present at 4 p.m. Thursday, March 2, the draft version of a plan to help mitigate or eliminate natural disasters in the future. The meeting will be at the Veterans Memorial Building, 1000 Main St.

Some federal funds are only available to communities that have an approved plan for mitigating hazards. Bob Neumann and Sheri Eibschutz of <u>Category Five</u>

<u>Professional Consultants</u> prepared the <u>Cambria Community Services District</u>'s draft Local Hazard Mitigation Plan. They'll explain the concepts in the document and then take public comments.

They're to fold those observations into the plan before presenting the final version to the district board.

Once the plan is complete and approved by a variety of agencies, the document will enable the services district to apply for and potentially receive federal mitigation funds after disasters. In some cases, the district may be able to apply for funds to mitigate the problem areas before a disaster strikes.

A draft copy of the plan can be found at <a href="www.cambriacsd.org">www.cambriacsd.org</a>. For questions and or comments, call fire Chief William Hollingsworth at 805-927-6240 or email the consultants at <a href="bob@cafive.com">bob@cafive.com</a>.