11. TIMBER COVE FIRE PROTECTION DISTRICT

11.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Sharon Lynn, Admin 30800 Seaview Road Cazadero, CA 95421 Telephone: 707-847-3299

e-mail Address: tcfpd4500a@gmail.com

Alternate Point of Contact

Erich Lynn, Chief 30800 Seaview Road Cazadero, CA 95421 Telephone: 707-867-3626

e-mail Address tcfpd4500c@gmail.com

c-man Address terpa-300c@gman.com

This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 11-1.

Table 11-1. Local Mitigation Planning Team Members		
Name	Title	
Sharon Lynn	TCFPD, Admin	
Grace O'Malley	Emergency Preparedness Coordinator	
Scott Farmer	SOCOMac	

11.2 JURISDICTION PROFILE

11.2.1 Overview

TCFPD is a special district that was formed in 1996. It was originally a volunteer fire department operating within CSA 40 in Sonoma County. The community formed a community benefit district in 1988 to fund construction of our current firehouse via a Mello-Roos. The district is responsible for providing fire suppression, emergency medical aid, ocean rescue and mutual assistant to our neighboring departments, as well as to State and County Parks.

The climate of TCFPD is generally coastal influence near the ocean, with high winds, heat and low humidity on the ridge tops and inland area. High winds and heavy rain during winter months create numerous downed trees with or without power lines, as well as rock and debris slides.

TCFPD governing body is comprised of a three-member elected Board of Directors.

The Board of Directors assumes responsibility for the adoption of this plan; TCFPD will oversee its implementation.

11.2.2 Service Area

Timber Cove Fire Protection District (TCFPD) is located in the central coast portion of Sonoma County. Bordered by the Pacific Ocean to the West and the Gualala River to the East; our district includes an eighteen mile stretch of U.S. Highway 1 from mile marker 27 on the southern end to mile marker 45 on the northern end and reaches into Bohan Dillon Road to the east. Our primary response area is approximately 48 square miles and includes steep coastal terrain and rugged, isolated, forested interior areas with limited access points. Our area is comprised of commercial vineyards and wineries, ranches, restaurants and lodging, as well as multiple housing subdivisions. We are 48% public land. Travel time from our firehouse to our farthest points within the district is 45 minutes to an hour depending on weather and road conditions.

11.2.3 Assets

Table 11-2 summarizes the assets of the district and their value.

Table 11-2. Special Purpose District Assets		
Asset	Value	
Property		
2.2 acres of land	\$175,000	
Equipment		
Roof catchment water system	\$330,000	
Septic System	\$75,000	
Fuel Tanks	\$60,000	
Backup Generator	\$45,000	
Communication Command Post	\$47,000	
Disaster Preparedness Trailer and Supplies	\$33,000	
Stored medical supplies and blankets	\$45,000	
Apparatus (7 units)	\$2,500,000	
Apparatus equipment and onsite gear	\$1,800,000	
Total:	\$4,935,000	
Critical Facilities and Infrastructure		
Fire House—Station 1—30800 Seaview Road, Cazadero	\$3,800,000	
Total:	\$3,800,000	

11.3 CURRENT TRENDS

According to Sonoma County parcel listing for the TCFPD area, the population of the Timber Cove area as of July 1, 2020 was approximately 502. The full time resident population in the Timber Cove response area has remained steady. We have experienced a growth in short term rental housing, commercial hotel and tourist visitation. In 2019, 30% of our 292 calls involved tourists and were primarily medical aid or vehicle accidents.

The Timber Cove area housing development is low. There is currently a new hotel project being considered which will be located on the coastal bluffs adding a day spa and 10 upscale cabins for visitors.

Table 11-3 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

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Table 11-3. Recent and Expected Future Development Trends						
Criterion	Re	sponse				
 Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan? If yes, give the estimated area annexed and estimated number of parcels or structures. 	No					
Is your jurisdiction expected to annex any areas during the performance period of this plan? • If yes, describe land areas and dominant uses.	Yes We are anticipating adding 35 sq. miles to our eastern border. This land is comprised of 40 acre agricultural homesteads, commercial agriculture, vineyards and wineries and a non-profit religious organization and a new state park to be dedicated in the future.					
 If yes, who currently has permitting authority over these areas? 	Sonoma County					
 Are any areas targeted for development or major redevelopment in the next five years? If yes, briefly describe, including whether any of the areas are in known hazard risk areas 	Ocean bluff cabins (10) and spa are located in a Tsunami Zone. The new State Park would be at the farthest easterly point of our district. The park is a redwood preserve and would be subject to possible wildland fires and medical aid requests.					
How many permits for new construction were		2015	2016	2017	2018	2019
issued in your jurisdiction since the preparation of the previous hazard mitigation plan?	Single Family Multi-Family	1	2	2	1	0
piuri.	Other (commercial, mixed use, etc.)				1	
	Total	1	2	2	1	0
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	 Special Flood Hazard Areas: 0 Landslide: 0 High Liquefaction Areas: 0 Tsunami Inundation Area: 2 Wildfire Risk Areas: 6 					
Describe the level of buildout in the jurisdiction, based on your jurisdiction's buildable lands inventory. If no such inventory exists, provide a qualitative description.	There is no buildout plan for the area. A majority of the area is in the Coastal Zone and has additional permitting requirements which add time and expense to the building process. Land outside the coastal zone is generally large holdings and held by generational families.					

11.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The "Analysis of Mitigation Actions" table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 11-4.
- An assessment of fiscal capabilities is presented in Table 11-5.

- An assessment of administrative and technical capabilities is presented in Table 11-6.
- An assessment of education and outreach capabilities is presented in Table 11-7.
- Classifications under various community mitigation programs are presented in Table 11-8.
- The community's adaptive capacity for the impacts of climate change is presented in Table 11-9.

Table 11-4. Planning and Regulatory Capability				
Plan, Study or Program Date of Most Recent Update Comment				
Plan, Study or Program State Building Code	2019	Good for 3 years		
County Building Code & Coastal Commission Regulations	2019	Both codes are undergoing revisions in		
, ,		specific areas		

Table 11-5. Fiscal Capability				
Financial Resource	Accessible or Eligible to Use?			
Capital Improvements Project Funding	No			
Authority to Levy Taxes for Specific Purposes	Yes			
User Fees for Water, Sewer, Gas or Electric Service	No			
Incur Debt through General Obligation Bonds	Yes			
Incur Debt through Special Tax Bonds	Yes			
Incur Debt through Private Activity Bonds	No			
State-Sponsored Grant Programs	Yes			
Development Impact Fees for Homebuyers or Developers	No			
Federal Grant Programs	Yes			
Other	No			

Table 11-6. Administrative and Technical Capability				
Staff/Personnel Resource	Available?	Department/Agency/Position		
Planners or engineers with knowledge of land development and land management practices	No			
Engineers or professionals trained in building or infrastructure construction practices	No			
Planners or engineers with an understanding of natural hazards	No			
Staff with training in benefit/cost analysis	No			
Surveyors	No			
Personnel skilled or trained in GIS applications	No			
Scientist familiar with natural hazards in local area	No			
Emergency manager	N/A			
Grant writers	Yes	Staff		
Other	No			

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Table 11-7. Education and Outreach		
Criterion	Response	
Do you have a public information officer or communications office?	No	
Do you have personnel skilled or trained in website development?	Yes	
Do you have hazard mitigation information available on your website? If yes, please briefly describe	No	
Do you use social media for hazard mitigation education and outreach? If yes, please briefly describe	No	
Do you have any citizen boards or commissions that address issues related to hazard mitigation? If yes, please briefly specify	Yes We have a fire education and mitigation program	
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, please briefly describe	Yes We have a fire education and mitigation program	
Do you have any established warning systems for hazard events? If yes, please briefly describe	Yes On Call Now	

Table 11-8. Community Classifications				
	Participating?	Classification	Date Classified	
FIPS Code	No	N/A	N/A	
DUNS#	Yes	053759689	N/A	
Community Rating System	No	N/A	N/A	
Building Code Effectiveness Grading Schedule	No	N/A	N/A	
Public Protection	No	N/A	N/A	
Storm Ready	No	N/A	N/A	
Firewise	No	N/A	N/A	
Tsunami Ready	No	N/A	N/A	

Table 11-9. Adaptive Capacity for Climate Change		
Criterion	Jurisdiction Rating ^a	
Technical Capacity		
Jurisdiction-level understanding of potential climate change impacts	Medium	
Comment: Severe weather and lack of rainfall has impacted our tree health and greater more dead trees and	debris	
Jurisdiction-level monitoring of climate change impacts	Medium	
Comment: Our monitoring is based on our longevity of time living in this environment and the changes we see	e in the environment.	
Technical resources to assess proposed strategies for feasibility and externalities	Low	
Comment: There have been some studies about sudden oak death and pine beetle.		
Jurisdiction-level capacity for development of greenhouse gas emissions inventory	Low	
Comment.		
Capital planning and land use decisions informed by potential climate impacts	Low	
Comment:		
Participation in regional groups addressing climate risks	Low	
Comment:		

Criterion	Jurisdiction Ratinga
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes Comment:	Low
Identified strategies for greenhouse gas mitigation efforts Comment:	Low
Identified strategies for adaptation to impacts Comment:	Low
Champions for climate action in local government departments Comment:	Low
Political support for implementing climate change adaptation strategies Comment:	Low
Financial resources devoted to climate change adaptation Comment:	Low
Local authority over sectors likely to be negative impacted Comment:	Low
Public Capacity	
Local residents knowledge of and understanding of climate risk Comment:	Medium
Local residents support of adaptation efforts	Low
Comment: Our community is aware of climate change and while not specifically organized there is the possible discussion	ility for cooperation and
Local residents' capacity to adapt to climate impacts Comment:	Medium
Local economy current capacity to adapt to climate impacts Comment: Our economy is tourist driven and climate change has and will continue to affect what activities ped	Medium ople may participate in
Local ecosystems capacity to adapt to climate impacts Comment: Covid19 lockdown in March demonstrated the impact of tourism on our environment and the need people visiting our coastal area.	Low to mitigate the number of
a. High = Capacity exists and is in use; Medium = Capacity may exist, but is not used or could use some impro Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known	

11.5 INTEGRATION REVIEW

For hazard mitigation planning, "integration" means that hazard mitigation information is used in other relevant planning mechanisms, such as capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

11.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

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Type of Event	Date	Damage Assessment
High Wind & Storm Event	02/06/2017-02/09/2017	Heavy Rain, trees down, debris flow, road closure
Fort Fire	10/06/2017-10/10/2017	18 acres, no structures
High Wind Event	12/16/2017	Multiple down trees
Wild Fire-Salt Point St. Park	09/03/2016	<5 acres, evacuation of campground
High Wind & Storm Event	12/15/2016-12/17/2016	Heavy Rain, trees down, debris flow, road closure
High Wind & Storm Event	02/06/2015-02/09/2015	Heavy Rain, trees down, debris flow, road closure
High Wind & Storm Event	02/6/2014-02/09/2014	Heavy Rain, trees down, debris flow, road closure
Drought Declaration	02/25/2014	Dry conditions, dry wells
Rain Storm Event—moderate wind	12/10/2014-12/11/2014	Heavy rain, debris flows, flooding, road closures, trees down
High Wind Event	04/08/2013-04/09/2013	Multiple down trees
Fire Wildland—Fisk Mill	05/15/2013	>5 acres, power lines down
Fire Wildland—Bohan	09/24/2013	>5 acres, no structures
High Wind Event	10/04/2013	Multiple down trees
High Wine Event	11/21/2013-11/22/2013	Multiple down trees
High Wind & Storm Event	01/19/2012-01/20/2012	Heavy Rain, trees down, debris flows, road closures, flooding
High Wind & Storm Event	03/14/2012-03/16/2012	Heavy Rain, trees down, debris flows, road closures, flooding
High Wind & Storm Event	11/30/2012-12/05/2012	3 Storms, heavy rain, trees down, debris flows, road closures, flooding, PGE outages
High Wind & Storm Event	12/21/2012-12/23/2012	Heavy Rain, trees down, debris flows, flooding
High Wind & Storm Event	02/16/2011-20/17/2011	Heavy Rain, trees down, debris flows, flooding
Tsunami Watch	03/11/2011	Stand by—evacuation of lower coastal zone—westside of Hwy 1
High Wind & Storm Event	03/16/2011-03/20/2011	Heavy Rain, trees down, debris flows, flooding
High Wind & Storm Event	06/04/2011	Heavy Rain, trees down
High Wind & Storm Event	01/18/2010-01/20/2010	Heavy Rain, trees down, debris flow, flooding, road closures PGE outages
High Wind & Storm Event	10/24/2010-10/252010	Heavy rain, trees down, flooding, PGE outages
High Wind & Storm Event	12/28/2010-12/29/2010	Heavy rain, trees down, flooding, debris flow, road closures, PGE outages
High Wind & Storm Event	02/15/2009-02/16/2009	Heavy rain, trees down, debris flow, PGE outages
H1N1-Pandemic	04/01/2009-05/31/2009	Precautions in place—tourism
High Heat	05/17/2009-05/18/2009	Extreme heat—80 deg at coast
High Wind & Storm Event	10/13/2009-10/14/2009	Heavy rain, trees down, debris flow, PGE outages
High Wind & Storm Event	01/04/2008-01/06/2008	Heavy rain, trees down, debris flow, PGE outages
High Wind & Storm Event	11/01/2008-11/03/2008	Heavy rain, trees down, debris flow, PGE outages
Freezing Rain & Snow	12/15/2008-12/15/2008	Snow, freezing rain, wind
Wild Fire-Vegetation	10/05/2007	<5 acres, Hwy 1 MM 37
Wild Fire-Rosson	11/02/2007	<5 acres, Rosson Road
High Wind & Storm Event	12/31/2007-01/03/2006	Heavy rain, trees down, debris flow, flooding, road closures, PGE outages
Wild Fire-Meyers Grade	06/25/2006	>5 acres, escaped burn
Wild Fire—Hirsh	09/20/2006-09/21/2006	<5 acres, vegetation
High Wind & Storm Event	12/27/2006-01/01/2005	Heavy rain, trees down, debris flow, flooding road closures, PGE outages
High Wind Event	03/19/2005-03/20/2005	Trees down, PGE outages

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Type of Event	Date	Damage Assessment				
Wild Fire-Prairie	10/16/2005	<5 acres, State Park				
Wild Fire-Stump Beach	09/11/2004	>5 acres, State Park				
High Wind & Storm Event	01/01/2002-01/03/2002	Heavy rain, trees down, flooding road closures, PGE outages				
High Wind & Storm Event	12/13/2002-12/16/2002	Heavy rain, trees down, flooding road closures, PGE outages				
Wild Fire-Ocean Cove	07/14/2001	>5 acres, powerlines down				
Wild Fire-Burn Pile	09/03/2001	>5 acres, big burn pile				
High Wind & Storm Event	02/13/2000-02/14/2000	Heavy rain, trees down, flooding road closures, PGE outages				
High Wind & Storm Event	02/02/1998-02/25/1998	Series of storms, flooding, debris flow, road closures, trees down, PGE outages				
High Wind & Storm Event	12/29/1996-01/03/1997	Heavy rain, trees down, flooding, debris flow, road closures, PGE outages				
Wild Fire-Gerstle	09/1993	700 acres, prairie to ocean burn area Both sides of Hwy 1				

11.6.2 Hazard Risk Ranking

Table 11-11 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and the economy. Mitigation actions target hazards with high and medium rankings.

Table 11-11. Hazard Risk Ranking							
Rank	Hazard	Risk Rating Score	Category				
1	Wildfire	39	High				
2	Earthquake	34	High				
3	Dam Failure	34	High				
4	Severe Weather	30	Medium				
5	Landslide	26	Medium				
6	Sea Level Rise	18	Medium				
7	Flood	14	Low				
8	Tsunami	6	Low				
9	Drought	6	Low				

11.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Wildfire access to water, must be hauled; rugged terrain; narrow access roads which function as evacuation routes.
- Earthquake may cause infrastructure failure; water; power; communications, State Hwy 1 collapse into ocean limiting accessibility to affected area.
- Water company dam failure would deny water to 25% of community as well as level everything between it and Hwy 1.

- Limited landslide activity along State Hwy 1, closure would limit accessibility to area.
- Sea Level Rise eroding cliffs and encroaching on businesses and homes located on bluffs.
- Flooding generally comes with severe weather and affects local streams and roadways.
- Drought may become a greater risk depending on length, number of failed wells, capacity of Water Company and increase hazardous fuel loads from dead and dying trees.

Mitigation actions addressing these issues were prioritized for consideration in the action plan in this annex.

11.7 HAZARD MITIGATION ACTION PLAN

Table 11-12 lists the actions that make up the hazard mitigation action plan for this jurisdiction. Table 11-13 identifies the priority for each action. Table 11-14 summarizes the mitigation actions by hazard of concern and mitigation type.

Table 11-12. Hazard Mitigation Action Plan Matrix									
Benefits New or Existing Assets	Objectives Met	Lead Agency	Support Estimated Agency Cost		Sources of Funding	Timeline ^a			
Action TIM-1 —Develop community chipping program to reduce fuel load in WUI, increase visibility on roadways for incoming fire personnel and outgoing evacuees, and create safety/evacuation zones.									
<u> Hazards Mitigated:</u>	<u>s Mitigated:</u> Wildfire, Earthquake, Severe Weather								
New	4, 5, 6	TCFPD		Medium	HMGP, PDM, FMA	Ongoing			
Action TIM-2—De	Action TIM-2—Develop evacuation plans and staging areas for implementation in a disaster, educate and post out to community.								
Hazards Mitigated:	Wildfire, Earthquake	, Flood, Dam Failure	e, Landslide, T	sunami, Severe	Weather,				
New	1, 4, 6	TCFPD		Low	Volunteer	Short-term			
Action TIM-3—Up	date existing Disaster F	reparedness plan							
Hazards Mitigated:	Wildfire, Earthquake	, Flood, Dam Failure	e, Landslide, T	sunami, Severe	Weather				
New	1, 4, 6	TCFPD		Low	Funding secured from grant & use of volunteer labor	Ongoing			
Action TIM-4—De	velop an assessment a	nd Fire Mitigation ed	ducational plan						
Hazards Mitigated:	Wildfire								
New	5, 6	TCFPD		Low	Funding secured from grant	Ongoing			
Action TIM-5—Purchase a communication trailer to provide internet, radio, and phone in a disaster									
Hazards Mitigated: Wildfire, Earthquake, Flood, Dam Failure, Landslide, Tsunami, Severe Weather									
New	4, 5, 6	TCFPD		High	Grant not secured at this time	Long-term			
 a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing= Continuing new or existing program with no completion date See the introduction to this volume for list of acronyms used here. 									

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	Table 11-13. Mitigation Action Priority										
Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Cost?	Is Project Grant- Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Implementation Priority ^a	Grant Pursuit Priority ^a			
TIM-1	3	High	Medium	Yes	Yes	No	High	High			
TIM-2	3	High	Low	Yes	Yes	Yes	High	Low			
TIM-3	3	High	Low	Yes	Yes	Yes	High	Low			
TIM-4	2	High	Low	Yes	Yes	Yes	High	Low			
TIM-5	3	High	High	Yes	Yes	No	Medium	High			

a. See the introduction to this volume for explanation of priorities.

Table 11-14. Analysis of Mitigation Actions									
	Action Addressing Hazard, by Mitigation Type ^a								
		Property	Public Education &	Natural Resource	Emergency	Structural	Climate	Community Capacity	
Hazard Type	Prevention	Protection	Awareness	Protection	Services	Projects	Resilient	Building	
High-Risk Hazards									
Wild Fire			TIM-1, 2, 3, 4	TIM-1, 3, 4	TIM-2, 3, 4, 5		TIM-1	TIM-3, 5	
Earthquake			TIM-1, 2, 3,		TIM-2, 3, 5			TIM-5	
Dam Failure			TIM-1, 2, 3		TIM-2, 3, 5			TIM-5	
Medium-Risk Hazard	s								
Severe Weather			TIM-1, 2, 3	TIM-1, 3, 4	TIM-2, 3, 5		TIM-1	TIM-5	
Landslide			TIM-2, 3	TIM-1	TIM-2, 3, 5		TIM-1	TIM-5	
Sea level Rise			TIM-2, 3		TIM-2, 3, 5			TIM-5	
Low-Risk Hazards									
Flood			TIM-1, 2, 3, 4	TIM-1, 3, 4	TIM-2, 3, 5			TIM-5	
Tsunami			TIM-2, 3		TIM-2, 3, 5			TIM-5	
Drought			TIM-2, 3		TIM-2, 3, 5			TIM-5	

a. See the introduction to this volume for explanation of mitigation types.

11.8 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed for this annex.

- Disaster Preparedness in Timber Cove (2010)
- Timber Cove Forest and Fuel Management Plan (2001)

The following outside resources and references were reviewed:

- Hazard Mitigation Plan Annex Development Toolkit—The toolkit was used to support the identification
 of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation
 action plan.
- Sonoma County Hazard Mitigation Plan (April 2017)

11.9 ADDITIONAL COMMENTS

Timber Cove Fire Protection District is comprised of 48% State and County Parks as well as a number of notable vineyards, wineries, lodging and resorts. These attractions and the natural beauty of the area draw upwards of 1,500 visitors to the area and increases our seasonal population to nearly 2,500 people daily. State Highway 1 is our main road. There are three additional side routes from State Highway 1 that lead east and inland. We have had three overturned fuel tankers that have closed State Highway 1 in the last seven years. Two of these incidents dumped 2,500 gallons plus of fuel into streams feeding the ocean, closed State Hwy 1 for more than 24 hours, and created evacuations of nearby homes and campgrounds. During the Meyers and Walbridge Fires in 2020 all three inland routes and State Hwy 1 were closed. There was essentially one way out from the area—north toward Fort Bragg. Our concern is being able to receive resources and move people to safety in an emergency situation given our small department size, limited evacuation routes and additional population created by tourism.

11-12 TETRA TECH