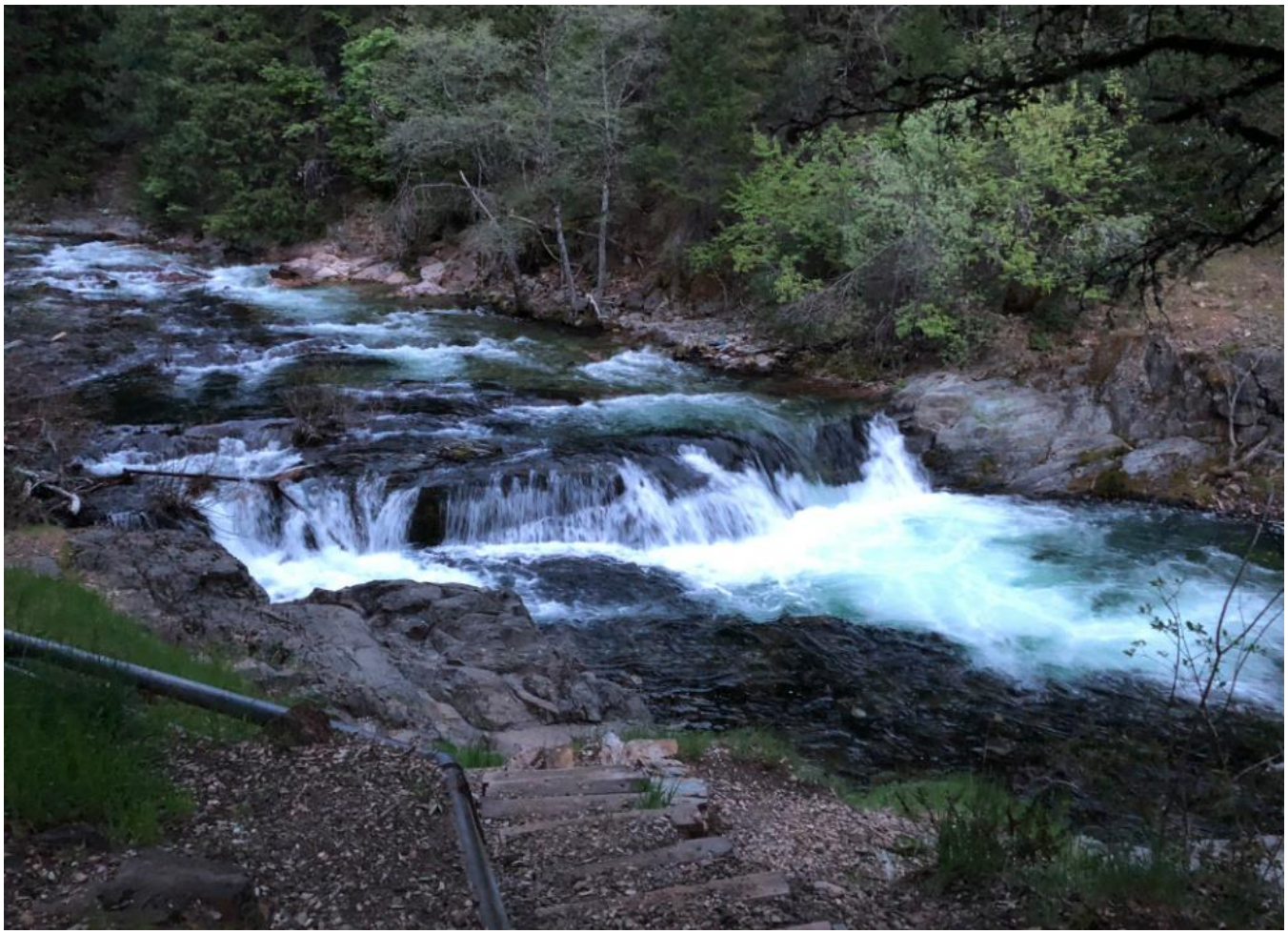
1. DOWNIEVILLE PUBLIC UTILITY DISTRICT



Source: Downieville Public Utility District

1.1 LOCAL HAZARD MITIGATION PLANNING TEAM

This annex was developed by the local hazard mitigation planning team for the Downieville Public Utility District. Members are listed below in Table 1-1.

Table 1-1. Local Planning Team

Primary Point of Contact		Alternate Point of Contact	
Name and Title:	Billy Epps	Name and Title:	Paul Douville, General Manager
Address:	PO 650 Downieville CA 95936	Address:	PO 444 Downieville CA 95936
Phone Number:	530-277-7559	Phone Number:	530-289-2774
Email:	Billyepps@outlook.com	Email:	pdouville46@gmail.com
Contributors:			
Name and Title: Method of Participation:	Paul Douville, General Manager Attended Steering Committee/Planning Partner meetings		
Name and Title: Method of Participation:	Billy Epps, Consultant Attended Steering Committee/Planning Partner meetings, developed this annex		

1.2 JURISDICTIONAL PROFILE

1.2.1 Overview

In 1885 a ditch from the early-named North Fork of the North Fork of the North Yuba (Downie River), and which supplied water to the Gold Bluff Mine, was extended by the Costa Brothers to the M.A. Costa Ranch just above Zumwalt Flat to supply this ranch. A few years later in 1890 this ditch was extended along the mountainside to a place above town on the north, higher on the hill than the Spaulding Flume, and supplied water to the reservoir which was located on the hill north of the Schoolhouse. A pipeline down the mountain from the end of the ditch delivered the water to the reservoir. This ditch, about six miles long, constituted the main water supply of Downieville until 1972 when the construction of the new closed-distribution system was completed.

Another early water system that collected water from several springs above the old Joseph Vollmar Orchard-Homestead across the then-named South Fork (North Fork of the North Fork of the Yuba River) from the present Mr. and Mrs. Ray Brett home on Commercial Street, was initially owned by Jack Wolfe. In later years it became the property of Mr. and Mrs. Homer J. Gould and was known as the Gould Water System. It supplied several homes on Commercial Street with their domestic water. The system was purchased in the 1950's by the William T. Reed, L.L. Huelsdonk, and James J. Sinnott families and now supplies these three homes while yard water for these homes is supplied by the Town system. Another water system was that which supplied water to the early Garibaldi and the later John Ponta ranch, also known as the property of Mr. and Mrs. Angus James. The sources of supply of the other water systems were not at an elevation sufficient to supply water to this Ranch, so another source had to be developed which consisted of a ditch about a mile long that secured its water from Coyoteville Ravine a tributary to the North Yuba River. A spring in a ravine at the western end of the ranch provided domestic water for the Ponta home. This ditch has not been in use for over forty years. Today the water pressure of the new system is adequate to supply the several homes which have been built on lots carved from this earlier Garibaldi and Ponta ranches.

1.2.2 Service Area

The District serves an area of approximately1.5 square miles and an estimated 230 residents and provides water services to the community of Downieville. Potable water is used for drinking and fire suppression. Approximately 80 fire hydrants (combination of standard hydrants and 2-inch stands) are located throughout the community.

1.2.3 Governing Body

The District is governed by an elected 5-member Board of Directors, which assumes responsibility for the adoption of this plan. The District Board will oversee the plan's implementation.

1.2.4 Assets

Asset	Value
Property	
Plant property	$ 800,000
Equipment	
Storage and Contact tanks	$ 4,000,000
Water supply infrastructure	$ 9,000,000
Total:	***$$13,000,000.00***
Critical Facilities	
Water Treatment Facility	$ 3,000,000
Total:	***$$3,000,000.00***

1.3 CURRENT TRENDS

The District has relatively consistent usage of 60,000 gallons daily in the winter and 170,000 gallons daily in the summertime. During hazard events that impact the number of visitors in the County, usage may change. For example, the 2011 snowpack shut down the summertime bike race and the 2019 wildfire reduced the number of riders who came to the event, which reduces summertime water usage.

The District does not anticipate changes in services. The service area experiences minimal development and the population served remains fairly unchanged.

1.4 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 or improve upon 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.

1.4.1 Planning and Regulatory Capabilities

Jurisdictions have the ability to develop plans and programs and to implement regulations to protect and serve community members. An assessment of planning and regulatory capabilities is presented in Table 1-2.

Table 1-2. Planning and Regulatory Capabilities

Plan, Study or Program	Date of Most Recent Update	Comment
Emergency Bypass Restoration	1994	The District needs to develop a plan to address flume restoration
Consumer Confidence Report	2023	Annual water quality report
Drought Plan	2025 – in progress	Currently being developed as a countywide effort

Opportunities to Expand Planning and Regulatory Capabilities

The District will continue to comply with state requirements by producing an annual Consumer Confidence Report. The District is currently engaged in the development of the countywide Drought Plan. The District has developed *Mitigation Action 4: Assess flume that bypasses the first segment of water delivery and develop a plan for restoration to address the need for continuity of services.*

1.4.2 Fiscal Capabilities

Assessing a jurisdiction's fiscal capability provides an understanding of the ability to fulfill the financial needs associated with hazard mitigation projects. This assessment identifies both outside resources, such as grant-funding eligibility, and local jurisdictional authority to generate internal financial capability, such as through impact fees. An assessment of fiscal capabilities is presented in Table 1-3.

Table 1-3. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
If yes, specify: Water Service Fees	
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No

Opportunities to Expand Fiscal Capabilities

The District is committed to supporting Countywide outreach mitigation action *CW-3: Provide notification through links on the website or email distribution for available grant funding opportunities to the Planning Partnership.*

1.4.3 Administrative and Technical Capabilities

Planning, regulatory, and fiscal capabilities provide the backbone for successfully developing a mitigation strategy; however, without appropriate personnel, the strategy may not be implemented. Administrative and technical capabilities focus on the availability of personnel resources responsible for implementing all the facets of hazard mitigation. These resources include technical experts, such as engineers and scientists, as well as personnel with capabilities that may be found in multiple departments, such as grant writers. An assessment of administrative and technical capabilities is presented in Table 1-4.

Table 1-4. Administrative and Technical Capabilities

Staff/Personnel Resource		Available?
Planners or engineers with knowledge of land development and land management practices		Yes
If Yes, Department /Position:	Engineer Richard Melim	
Engineers or professionals trained in building or infrastructure construction practices		Yes
If Yes, Department /Position:	Engineer Richard Melim	
Planners or engineers with an understanding of natural hazards		Yes
If Yes, Department /Position:	Engineer Richard Melim	
Staff with training in benefit-cost analysis		No
Surveyors		Yes
If Yes, Department /Position:	Engineer Richard Melim	
Personnel skilled or trained in GIS applications		No
Scientist familiar with natural hazards in local area		No
Emergency manager		No
Grant writers		No
Procurement Services and Management		No

Opportunities to Expand Administrative and Technical Capabilities

Downieville is served by a WWII battleship generator that can provide emergency backup power to the entire town. Most of the town's lines are underground, not impacted by public safety power shutoffs. District support staff are committed to ensuring the reliability of this backup power.

1.4.4 Education and Outreach Capabilities

Regular engagement with the community on issues regarding hazard mitigation provides an opportunity to directly interface with community members. Assessing this outreach and education capability illustrates the connection between the government and community members, which opens a two-way dialogue that can result in a more resilient community based on education and public engagement. An assessment of education and outreach capabilities is presented in Table 1-5.

Table 1-5. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website?	No
Do you use social media for hazard mitigation education and outreach?	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	No
Do you have any other programs in place that could be used to communicate hazard-related information?	Yes
If yes, briefly describe: Everbridge, Post Office door flyer	
Do you have any established warning systems for hazard events?	No

Opportunities to Expand Education and Outreach Capabilities

There is no current need for the District to expand education and outreach beyond what is already being done.

1.4.5 Community Classifications

Other programs, such as Storm Ready, can enhance a jurisdiction's ability to mitigate, prepare for, and respond to natural hazards. These programs indicate a jurisdiction's capability to go beyond minimum regulatory requirements in order to create a more resilient community. These programs focus on communication, mitigation, and community preparedness to minimize the impact of natural hazards on a community. Classifications under various community mitigation programs are presented in Table 1-6.

Table 1-6. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	No	N/A	N/A
UEI#	N/A	N/A	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

1.4.6 Adaptive Capacity for Climate Change

An adaptive capacity assessment evaluates a jurisdiction's ability to anticipate impacts from future conditions. By looking at public support, technical adaptive capacity, and other factors, jurisdictions identify their core capability for resilience against issues such as extreme heat. The adaptive capacity assessment provides jurisdictions with an opportunity to identify areas for improvement by ranking their capacity high, medium, or low. The community's adaptive capacity for the impacts of climate change is presented in Table 1-7.

Table 1-7. Adaptive Capacity for Climate Change

Criterion	Jurisdiction Rating[a]
Technical Capacity	
Jurisdiction-level understanding of potential climate change impacts	Low
Comment:	
Jurisdiction-level monitoring of climate change impacts	Low
Comment:	
Technical resources to assess proposed strategies for feasibility and externalities	Low
Comment:	
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:	
Implementation Capacity	
Clear authority/mandate to consider climate change impacts during public decision-making processes	Low
Comment:	

Identified strategies for greenhouse gas mitigation efforts	Low
Comment:	
Identified strategies for adaptation to impacts	Low
Comment:	
Champions for climate action in local government departments	Low
Comment:	
Political support for implementing climate change adaptation strategies	Low
Comment:	
Financial resources devoted to climate change adaptation	Low
Comment:	
Local authority over sectors likely to be negative impacted	Low
Comment:	
Public Capacity	
Residents' knowledge of and understanding of climate risk	Low
Comment:	
Residents' support of adaptation efforts	Low
Comment:	
Residents' capacity to adapt to climate impacts	Low
Comment:	
Local economy current capacity to adapt to climate impacts	Low
Comment:	
Local ecosystems capacity to adapt to climate impacts	Low
Comment:	

a. High = Capacity exists and is in use; Medium = Capacity may exist but is not used or could use some improvement; Low = Capacity does not exist or could use substantial improvement; Unsure= Not enough information is known to assign a rating.

1.5 INTEGRATION

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.

1.5.1 Opportunities for Future Integration

The capability assessment in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Drought Plan** may reference information on the drought hazard in this hazard mitigation plan.

1.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Special purpose districts are not eligible to participate in the National Flood Insurance Program.

1.7 RISK ASSESSMENT

1.7.1 Jurisdiction-Specific Natural Hazard Event History

Table 1-8 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

Table 1-8. Past Natural Hazard Events

Type of Event	Declaration Title	State or Federal Disaster #	Declaration Date	Damage Assessment
Severe Storm	Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	DR-4699-CA	4/3/2023	
Flood	Severe Winter Storms, Flooding, Landslides, and Mudslides	EM-3592-CA	3/10/2023	
Storm	December 2021 Storms	2022-03	12/30/2021	
Fire	Wildfires	DR-4558-CA 2020-06	8/22/2020	
Biological	Covid-19 Pandemic	DR-4482-CA	3/22/2020	
Flood	Severe Winter Storms, Flooding, and Mudslides	DR-4308-CA 2017-03	4/1/2017	
Severe Storm	Severe Winter Storms, Flooding, and Mudslides	DR-4301-CA	2/14/2017	
Flood	2008 January Storms	2008-01	1/5/2008	
Severe Storm	Severe Storms, Flooding, Mudslides, and Landslides	DR-1628-CA 2006-01	2/3/2006	
Flood	Extreme Rainfall	2005-07	11/7/2005	$504,323
Severe Storm	Severe Storms, Flooding, Mud and Landslides	DR-1155-CA 97-01	1/4/1997	
Severe Storm	Severe Winter Storms, Flooding Landslides, Mud Flow	DR-1046-CA 95-03	3/12/1995	
Flood	Severe Winter Storm, Mud & Land Slides, & Flooding	DR-979-CA 93-01	2/3/1993	

Fire	1987 Wildland Fires	No number	9/10/87, 9/3/87	
Flood	Severe Storms & Flooding	DR-758-CA 86-01	2/21/1986	
Flood	Heavy Rains and Flooding	82-03	4/1/1982	
Flood	1980 April Storms	80-01 thru 80-25	4/1/1980	
Drought	Drought	EM-3023-CA	1/20/1977	
Flood	Severe Storms & Flooding	DR-253-CA	1/26/1969	
Flood	Heavy Rains & Flooding	DR-183-CA	12/24/1964	
Flood	1963 Floods and Rains	No number	2/7/63, 2/26/63, 2/29/63, 4/22/63	
Flood	1962 Floods and Rains	No number	10/17/62, 10/25/62, 10/30/62, & 11/4/62	
Fire	1960 Major Fires	No number	8/16/1960	

1.7.2 Hazard Ranking

The prioritization and categorization of identified hazards for the District is based principally on the Priority Risk Index (PRI), a tool used to measure the degree of risk for identified hazards in a particular planning area. The PRI was used to assist the District in identifying hazards that pose the most significant threat. Table 1-9 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.

Table 1-9. Hazard Risk Ranking Summary

Hazard	Weighted Risk Factors					PRI	Risk Ranking
	Probability	Impact	Spatial Extent	Warning Time	Climate Change		
Avalanche	.60	.60	.40	.40	.30	2.3	Medium
Dam Failure	0	0	0	0	0	0	None
Drought	1.2	.60	.80	.10	.40	3.1	High
Earthquake	.30	.60	.80	.40	.20	2.3	Medium
Extreme Heat	1.2	.60	.80	.10	.40	3.1	High
Flood	.90	.60	.80	.10	.30	2.7	Medium
Landslide/Mass Movement	1.2	.60	.60	.40	.30	3.13.1	High
Volcanic Activity	.30	.30	.80	.10	.20	1.7	Low
Wildfire	1.2	.60	.80	.40	.30	3.3	High
Winter Storm	1.2	.60	.80	.10	.40	3.1	High

1.7.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

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:

- Crystal Mountain road subsidence, soil migration due to oversaturation. Utility line goes through this road.
- Flash flooding with biggest effect on the north side of Downieville
- Cathodic protection from minerals in the soil. Current pipeline is steel/concrete lined.
- Need a computerized SCADA system for drought resilience and fire protection

If within jurisdictional authority, mitigation actions addressing these issues were prioritized for consideration in the action plan presented in this annex.

1.8 HAZARD MITIGATION STRATEGY

This section includes the following components of the mitigation strategy for this jurisdiction:

- Hazard Mitigation Action Plan Matrix
- Mitigation Action Prioritization
- Mitigation Action Classification and Natural Hazards Addressed

Table 1-10. Hazard Mitigation Action Plan Matrix

Action Number	Action Description	Community Lifeline Addressed	Benefits New or Existing Assets	Goals and Objectives Met	Lead and Support Implementers	Benefits Equity Priority Community?	Estimated Cost	Potential Funding Sources	Timeline
1	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are in high- or medium-risk hazard areas.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; Haz Mat; Water Systems	Existing	Goal:	Lead: General Manager	Yes	Very High ($1,000,000 and above)		Long-Term (5 years or more)
2	Integrate the hazard mitigation plan into other plans that address natural hazards within the service area including: • Drought Plan	Food, Hydration, Shelter	New and Existing	Goals:	Lead: General Manager	Yes	Low ($0-$50,000)	Staff Time, General Fund	Short-Term (less than 5 years)
3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; Haz Mat; Water Systems	New and Existing	Goals:	Lead: General Manager	Yes	Low ($0-$50,000)	Staff Time	Short-Term (less than 5 years)
4	Assess flume that bypasses the first segment of water delivery and develop a plan for restoration to address the need for continuity of services.	Food, Hydration, Shelter; Water Systems	Existing	Goal:	Lead: General Manager	Yes	High ($250,000-$1,000,000)		Short-Term (less than 5 years)

5	Support the Countywide mitigation actions outlined in Volume 1 of this hazard mitigation plan.	Safety & Security; Food, Hydration, Shelter; Health & Medical; Energy; Communications; Transportation; Haz Mat; Water Systems	New and Existing	Goals:	Lead: General Manager	Yes	Low ($0-$50,000)	Staff Time	Short-Term (less than 5 years)
6	Develop a computerized SCADA system for drought resilience and fire protection	Food, Hydration, Shelter; Water Systems	Existing	Goal:	Lead: General Manager	Yes	High ($250,000-$1,000,000)		Short-Term (less than 5 years)
7	Determine feasibility of replacing existing pipeline to provide cathodic protection from minerals in the soil. Current pipeline is steel/concrete lined.	Food, Hydration, Shelter; Water Systems	Existing	Goal:	Lead: General Manager	Yes	High ($250,000-$1,000,000)		Short-Term (less than 5 years)

1.9 PUBLIC OUTREACH

Broad public participation in the planning process helps ensure that diverse points of view about the jurisdiction's needs are considered and addressed. Jurisdictional outreach efforts are listed in Table 1-11.

Table 1-11. Public Outreach

Local Outreach Activity	Date	Number of People Involved
District staff supported the countywide outreach efforts for this plan	Throughout the planning process	About 200

1.10 INFORMATION SOURCES USED FOR THIS ANNEX

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

- **Asset Records** were referenced for the capability assessment
- **Consumer Confidence Report** was referenced for the capability assessment

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.