

## Chapter 2 What's New

**Requirements §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 it for approval within 5 years in order to continue to be eligible for mitigation project grant funding.**

The 2010 Placer County Multi-Hazard Mitigation Plan contained a detailed description of the planning process, a risk assessment of identified hazards for the Placer County Planning Area and an overall mitigation strategy for reducing the risk and vulnerability from these hazards. Since approval of the plan by FEMA, much progress has been made by Placer County and all participating communities on implementation of the mitigation strategy. As part of this 2016 LHMP Update, a thorough review and update of the 2010 plan was conducted to ensure that this update reflects current community conditions and priorities in order to realign the overall mitigation strategy for the next five-year planning period. This section of the plan includes the following:

- **What's New in the Plan Update.** This section provides an overview of the approach to updating the plan and identifies new analyses, data and information included in this plan update to reflect current community conditions. This includes a summary of new hazard and risk assessment data as it relates to the Placer County Planning Area as well as information on current and future development trends affecting community vulnerability and related issues. The actual updated data, discussions, and associated analyses are contained in their respected sections within this 2016 LHMP Update.
- **Summary of Significant Changes to Current Conditions and Hazard Mitigation Program Priorities.** This provides a summary of significant changes in current conditions and any resulting modifications to the community's mitigation program priorities.
- **2010 Mitigation Strategy Status and Successes.** This section provides a description of the status of mitigation actions from the 2010 plan and also indicates whether a project is no longer relevant or is recommended for inclusion in the updated 2016 mitigation strategy. This section also highlights key mitigation success stories of the County and participating jurisdictions since the 2010 LHMP.

This What's New section provides documentation of Placer County Planning Area's progress or changes in their risk and vulnerability to hazards and their overall hazard mitigation program. Completion of this 2016 LHMP Update further provides documentation of the Placer County community's continued commitment and engagement in the mitigation planning process.

### 2.1 What's New in the Plan Update

This LHMP update involved a comprehensive review and update of each section of the 2010 plan and includes an assessment of the success of the participating communities in evaluating, monitoring and implementing the mitigation strategy outlined in the initial plan. Only the information and data still valid from the 2010 plan was carried forward as applicable into this LHMP update. In fact, based in part on the issuance of new 2011 and 2013 planning guidance, this 2016 plan has been significantly updated and rewritten.

Also to be noted, Section 7.0 Implementation and Maintenance of this plan update identifies key requirements for updating future plans:

- Consider changes in vulnerability due to action implementation;
- Document success stories where mitigation efforts have proven effective;
- Document areas where mitigation actions were not effective;
- Document any new hazards that may arise or were previously overlooked;
- Incorporate new data or studies on hazards and risks;
- Incorporate new capabilities or changes in capabilities;
- Incorporate growth and development-related changes to inventories; and
- Incorporate new action recommendations or changes in action prioritization.

These requirements and others as detailed throughout this plan were addressed during this plan update process.

As part of its comprehensive review and update of each section of the plan, Placer County and participating jurisdictions recognized that updated data, if available, would enhance the analysis presented in the risk assessment and utilized in the development of the updated mitigation strategy. Highlights of new data used for this Plan Update is identified below in this Section and is also sourced in context within Chapter 4, Risk Assessment. Specific data used is sources throughout this plan document. This new data and associated analysis provided valuable input for the development of the mitigation strategy presented in Chapter 5 of this plan.

Highlights of new information and analyses contained in this plan update includes the following:

- A new assessment of updated hazards affecting the Placer County Planning Area was completed resulting in the elimination of epidemic/pandemic, West Nile Virus, expansive soils, and volcano, as they were determined to be of very low significance to the County. New hazards include levee failure, subsidence, and hazardous materials transport.
- The agriculture hazard was consolidated into one hazard given the economic base this industry provides to the County.
- The drought hazard was expanded to include water shortage impacts to the County, to better align with the State of California Hazard Mitigation Plan and to reflect the significant issues related to drought conditions resulting from the current and ongoing drought within the County and State of California.
- Levee failure was separated out from the flood hazard to better identify the status of levees within the County, the potential vulnerability of the County to levees, including both those providing a 100-year level of flood protection and those that do not, and any future mitigation efforts to reduce the vulnerability from a levee failure.
- An entire rework of the risk assessment for each identified hazard. This included reworking the hazard profile and adding new hazard event occurrences; redoing the entire vulnerability analysis to add items identified below and updating the vulnerability assessment based on more recent hazard data as well as using the most current parcel and assessor data for the existing built environment.
- An update of the flood hazard analysis to include an updated analysis of the 100-year flood, an analysis of the 500-year flood, and an enhanced analysis of the localized/stormwater flooding problems affecting the planning area, including the use the new DFIRMs (Preliminary DFIRMs dated March 29, 2010)

developed by FEMA for the County, the Best Available Maps (BAM) compiled by the state, and input from the County. An analysis of flooded acres in the Planning Area based on new DFIRMs was also conducted.

- New dam data provided by Cal OES was used for the Dam inventory and analysis. This data included an updated hazard classification for identified dams.
- An analysis of the Repetitive Loss (RL) properties within the County was completed for this update, including a mapping of historical loss properties to assist the County in identifying potential, future RL properties and areas.
- Climate Change has been addressed within the hazard profiles of each identified hazard to assist the County in considering climate change issues when identifying future mitigation actions for the Planning Area.
- Utilizing updated critical facility GIS mapping for the Planning Area to provide an updated inventory of critical facilities by jurisdiction and a GIS analysis of critical facilities vulnerable to three priority hazards: flood, wildfire, and hazardous materials transportation.
- An enhanced vulnerability assessment which added a GIS analysis of updated future development areas in the Planning Area and specific to each of the mapped hazards.
- Incorporation and analysis of the new 2010 Census data was utilized for this LHMP update.
- Also, as required by current FEMA planning guidance, an analysis of each jurisdictions' ongoing and continued compliance with the NFIP.
- For the CRS community of Placer County, this plan was developed to maximize CRS credits for CRS Activity 510, Floodplain Management Planning.
- As part of the CRS Activity 510 requirements, a greater emphasis was placed on public involvement and outreach of this LHMP Update as well as Agency coordination and input.

## 2.2 Summary of Significant Changes to Current Conditions, Planning Area Vulnerability, and Hazard Mitigation Priorities

This section provides a summary by hazard of significant changes in current conditions, planning area vulnerability, and any resulting modifications to the community's mitigation program priorities since the 2010 LHMP:

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Agricultural Hazards			X

- Recent drought conditions stressed crops making them more susceptible to insect infestation
- Reduced water supply resulted in land being left out of production reducing overall crop yields
- Noxious weeds are more drought tolerant – better able to compete for water over local crops
- Drought increased the tree mortality in the County further impacting the timber industry. Timber is the #2 Ag product in the County.
- In addition, there is a lack of infrastructure, such as timber mills, online to process product

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Avalanche	X		X

- The avalanche conditions in the County are dynamic and change from season to season and often from day to day resulting in every changing increases and decreases in vulnerability.
- There has been one recent (single home) development allowed through a zoning change in the Alpine Meadows area in an Avalanche area.
- Different avalanche mitigation techniques, propane-based Gaz-Ex, are being used in areas near highways that have been effective in reducing the risk. Cal Trans have been using this up on Highway 50 on Echo Summit. However, this technique requires permanent infrastructure to remain in place as opposed to techniques using mortars and hand charges. The advantage of this other technique is that it can be used remotely.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Dam Failure	X		X

- Folsom Dam Improvement projects are near completion that will allow releases at a lower flood stage so the Dam can hold more water for enhanced flood control. This decreases the overall vulnerability in the Folsom Dam inundation areas.
- Jurisdictional dams generally have no change in vulnerability as they are highly regulated. However, with more people moving into dam inundation areas, the vulnerability increases due to an increase in potentially affected population, but not due to an increased risk of dam failure.
- Non-jurisdictional dams pose the biggest risk and, over time with little regular maintenance and often located in remote areas with little security, result in an increase in vulnerability to Placer.
- Post fire conditions such as those experienced in the aftermath of the King Fire create excess debris and sediment issues which can affect the functionality of area dams. In fact, various water supply districts such as PCWA and NID have been incurring costs associated with monitoring and debris removal around area dams and waterways. Thus there is a potential increase in vulnerability with heavy storms in wildfire burn scar areas.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Drought and Water Shortage			X

- Since the 2010 planning process, current drought conditions, including water supply issues, have had a significant impact on the Placer County planning area and California. As a result the drought hazard has become a significant priority for mitigation planning.
- As previously mentioned, the drought has contributed to an increase in vulnerability of the County due to increase tree mortality issues and general increase in wildfire conditions.

- With water companies/agencies in Placer undertaking intertie projects, the issue of a lack of water supply to area residents is being effectively mitigated. However, on the eastern side, there are still potential issues with the drought for those companies not equipped with submersible pumps.
- Over the last few years, the drought has had a significant economic impact on recreation in the County. With Lake Tahoe and rivers running substantially lower, less people have been vacationing and undertaking water dependent recreational activities, such as boating, rafting, etc.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Earthquakes		X	

- Although the Eastern side of the County has been experiencing an increase in earthquake occurrences over the last several years, the planning team does not feel that the actual earthquake risk has increased.
- The primary factor that might change the earthquake vulnerability, is additional development and more people moving to the area.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Floods:100-/500-year		X	

- With the issuing of new FEMA flood maps (2010 DFRIMs), flood depths have been established in some areas and the regulatory Special Flood Hazard Area has changed. With these changes, flood mitigation projects, including flood insurance promotion and continued participation in the NFIP's CRS program, is a priority.
- Although the FEMA mapped floodplains have changed based on new data, the risk and vulnerability of 100/500 year flooding events remain unchanged. Effective land use planning and requirements for development in identified floodplains have minimized additional exposure to this hazard in the County.
- Within the unincorporated county, there have been 35 new building permits issued within the 1% annual chance floodplain since the 2010 LHMP; 34 of these are residential and 1 is industrial. All new development in the floodplain has been completed in accordance with current and applicable codes and standards, thus these new development areas should be protected from future flooding.
- Also, potentially compounded by the recent years of drought, the predictions for an upcoming El Nino winter is a renewed concern for the planning area, with the potential for large storms carrying significant precipitation that can result in increased flooding and associated damages throughout the planning area.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Floods: Localized Flooding		X	

- Increased development in unmapped flood hazard areas could result in a net increase in vulnerability should these areas experience increased stormwater/localized flooding. However, development requirements that require mitigation of stormwater runoff effectively mitigates this hazard.

- Climate change issues such as this El Nino season may result in more localized flooding as the climate warms and the wetter storms create more runoff.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Landslide and Debris Flows			X

- Over the last couple of years, with the severe drought, much of the vegetation along slopes areas is failing to thrive, thus there is a lack of vegetation to hold soil contributing to the landslide/mudslide potential.
- Post fire conditions, such as the King Fire, have left areas more susceptible to landslides and debris flows, especially with the heavy storms associated with the current El Nino winter.
- Even outside of post-fire areas, recent wet storms have increased the incidents of landslides and road closures.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Levee Failure		X	

- There are limited areas outside of Roseville that are affected by levees, thus this hazard has seen little change.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Seiche (Lake Tsunami)		X	

- The vulnerability of this hazard is primarily affected by changes in development to lakefront properties. There has been little new development in these areas; most changes are the result of redevelopment which has not effectively changed the vulnerability of this hazard.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Severe Weather: Extreme Heat		X	

- This low priority hazard in Placer County has seen little change over the last five years.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Severe Weather: Freeze and Snow	X		

- Over the last five years of mild winters, there has been a notable decrease in vulnerability of Placer County to freeze and severe winter storms. However, with climate change factors and the current El Nino conditions, this may actually increase in the years ahead.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Severe Weather: Fog and Freezing Fog		X	

- This low priority hazard has not changed over the last five years.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Severe Weather: Heavy Rains and Storms	X		

- Over the last five years of mild winters, there has been a notable decrease in vulnerability of Placer County to heavy rains and storms. However, climate change and the current El Nino predictions bring renewed concern moving forward for heavy rains, storms and associated issues to the County.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Soil Bank Erosion			X

- Drought conditions have increase the occurrence of stream bank erosion, with soils drying out and becoming more friable, they tend to slough off the banks causing increased areas of erosion.
- As previously noted, erosion issues increased in post-fire burn areas.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Subsidence		X	

- Drought conditions have contributed to increased subsidence statewide. In Placer County, this is likely more of a western side issue; and actual impacts or changes in the County’s vulnerability to subsidence is unknown, but are expected to be limited in the County from this low priority hazard.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Wildfire			X

- Compounded by current drought conditions, the wildfire hazard has substantially increased and is no longer just a seasonal issue. The wildfire season, including the potential for a catastrophic wildfire, is now a year around concern.

- The vulnerability of Placer County to increased occurrence of a devastating wildfire has increased as exacerbated by the recent drought, increases in tree mortality, and overall increase in wildfire conditions.
- The increased development in WUI areas within the County also contributes to an increase in vulnerability.
- Significant environmental and economic impacts in recent years such as the cancelling of future Ironman events due to the air pollution associated with wildfire activity is direct evidence of this increasing vulnerability and impact to the County.

2016 LHMP Update Hazards	Decrease in Vulnerability	No Change in Vulnerability	Increase in Vulnerability
Hazardous Materials Transport			X

- Also of recent concern to the Planning Area with recent changes in legislation is the Hazardous Transportation issue, which focuses on Oil by Rail transport within and through the County. As a result, this priority hazard was added to this Plan Update, as part of the Hazardous Materials Transportation Hazard, which incorporated data and analysis identified in the County's 2015 Oil by Rail Plan.
- However, with the price of oil continuing to drop and thus less oil being transported through the County, this may level out the potential impacts of this new hazard to the planning area.

### Multi-hazard Considerations

- With new areas of development identified in both the Western and Eastern side of the County and within the incorporated communities, requirements for new development will consider various hazard constraints and mitigation measures to govern ultimate development and buildout of these areas. Changes in development that have occurred in hazard prone areas and have increased or decreased the vulnerability of the Planning Area, development planned or under the consideration of the participating jurisdictions, and other conditions that may affect the risks and vulnerabilities of the Planning Area such as climate change variables are documented and considered in this Plan Update.

## 2.3 2010 LHMP Mitigation Strategy Status and Successes

Placer County and its various communities have been very successful in implementing actions identified in the 2010 LHMP Mitigation Strategy, thus, working diligently towards meeting their 2010 goals of:

- Goal 1: Prevent Future Hazard Related Losses of Life and Property
- Goal 2: Increase Public Awareness/Action of Vulnerability to Hazards
- Goal 3: Improve Community Emergency Services/Management Capability
- Goal 4: Implement and complete identified high priority projects listed in the plan
- Goal 5: Pursue Multi-Objective Opportunities “MOM” Whenever Possible
- Goal 6: Maintain FEMA Eligibility/Position Jurisdictions for Grant Funding

Where possible, Placer County and the participating jurisdictions used existing plans and programs to implement the 2010 mitigation strategy. Examples include implementation of wildfire mitigation actions

through Fire Safe Alliances and existing community wildfire protection plans (CWPPs), implementation of flood mitigation actions through the County and PCFCWCD programs including existing plans, studies, and projects, and implementation of a variety of projects through the County’s Capital Improvement Program.

### 2.3.1. Success Stories

Placer County and all participating jurisdictions have been successful in completing actions from the previous plan. Some of these success stories are highlighted below.

#### *Provide Fire Protection Water Source in Sheridan*

The Sheridan Water Supply Improvements Project was completed in 2014. The project upgraded the public water system in the community of Sheridan, located in unincorporated western Placer County. The project included the development of a new groundwater well, water storage tank, pump station, supporting infrastructure, and pipeline upsizing from Camp Far West road to the Sheridan Elementary School to ensure flows to the school meet State fire flow requirements. The ribbon cutting is shown in Figure 2-1.

*Figure 2-1 Ribbon Cutting for Sheridan Well*



Source: Placer County Planning Division

*Todd Valley Shaded Fuel Break*

A recent clearing project was undertaken along Foresthill Road just west of Todd Valley Road, and along Todd Valley Road to the intersection of Moughnberry Lane. According to the Placers Fire Safe Council, grants covered \$48,000 of the project with the balance of just over \$70,500 being “In Kind” dollars and funding from Property Owners, NRCS grant funds and BLM grant funds. All ground work has been completed using allocated funds for the project. This includes mastication and hand crew work for vegetation removal and chipping of removed products, CEQA documents, project management and oversight of project, and grant administration. Approximately 25 acres received treatment via mastication and hand work, it is estimated that 75 percent of the fuel loading has been reduced in the project area. The project was completed over a sixty day period where weather provided ideal conditions for work to be performed. This project achievement was directly a result of the collaborative effort by multiple government agencies and the private citizens and organizations of the community. This project is a continuation of several strategically placed Shaded Fuel Breaks, more importantly its value to the community in fire protection, watershed enhancement, and cultural preservation. Before and after pictures are shown in Figure 2-2.

*Figure 2-2 Shaded Fuel Break Before and After*



Source: Foresthill Messenger newspaper, January 20, 2016

*Middle Fork Project Fuel Reduction Management Program*

Through an annual funding agreement between Placer County Water Agency (PCWA) and Placer County, funds are expended to perform fuel management activities that support a reduction in potential fire in the Middle Fork Project (MFP) area. This area is a critical forested watershed and protection of it is of paramount importance. The MFP is a multi-purpose water supply and hydro-generation project designed to conserve and control waters of the Middle Fork American River, the Rubicon River, and several associated tributary streams. The location is generally located in the Tahoe National Forest and private land well above the community of Foresthill and continues down the American River near the community of Auburn. Beginning in 2014 and for the duration of the federal license for the MFP an annual amount of funds will be made available to organizations that propose projects or have programs that 1) have a direct nexus to the project area and 2) show the potential to reduce fire danger through some form of fuel management projects. There are applications, matching fund requirements, agreements and documentation results that must be met in order to be eligible to receive funding awards. All projects must be identified in the CWPP.

- Greater Auburn Area Firesafe Council was successful in receiving funds for continued work on the Project Canyon Safe Shaded Fuel Break above the American River Canon
- Foresthill/Iowa Hill Firesafe Council was successful in receiving funds for several projects in and around the community of Foresthill.

### *Firewise Communities/Grant Writer Coordinator*

Placer County contracted out for a Firewise Communities Coordinator/Grant Writer to help implement the projects in the CWPP, and work with the Firesafe Councils to identify communities interested in becoming recognized Firewise Communities.

- Moody Ridge Secret Town Shaded Fuel Break in 2014 was the first project funded through the efforts of this position. The Placer Sierra Firesafe Council through a joint effort with U.S Forest Service, CAL FIRE, Placer County Firesafe Alliance and Placer Resource Conservation District received \$200,000 in federal grant funding to complete two local projects identified in the West Slope Placer County Wildfire Protection Plan. The project completed 118 acres of shaded fuelbreak along the North Fork American River Canyon Rim in the Moody Ridge area along with 34 acres of roadside clearing along Moody Ridge, and Lovers Leap Rd.
- In 2014 this position was also responsible for acquiring \$489,907.50 in Drought Hazard Mitigation Funds from Pacific Gas and Electric Co. this funding was used to complete six fuels reduction projects throughout the county identified in the CWPP
- In 2015 the position was responsible for applying for \$2,266,350.00 in grants of which \$391,300.30 has been funded completing seven additional CWPP projects, \$344,000 was denied due to diminished grant funds, and will be resubmitted in 2016. And \$1,531,050.00 is still pending.
- The Firewise Coordinator side of this position with the help of the local Firesafe Councils has identified twenty six Placer County communities that are currently in various stages of the Firewise Recognition process with four of the communities being officially recognized Firewise Communities through the National Firewise program. These recognized communities are
  - ✓ Monte Verde Estates HOA
  - ✓ Sugar Pine View Firewise Community
  - ✓ Olive Orchard Firewise Community
  - ✓ Eaglecrest HOA

### *Placer County Chipper Program*

Placer County has also partnered with the Placer Resource Conservation District, and received funding through the Air Pollution Control District for Chipper Replacement, Pacific Gas and Electric grant for running the day to day operations of the program, CAL FIRE SRA grant funding to purchase an operate a Track Chipper, CAL FIRE SRA, grant funding to operate the Chipper Program for the next two years. For a total of \$794,209.00

## *Dowd/Yankee Bridge and Alpine Bridge*

### **Alpine Meadows Bridge Replacement**

Replaced the existing bridge crossing the Truckee River with a new bridge that improves the safety and mobility of autos, pedestrians and cyclists. The new bridge will clear span the Truckee River and will be widened to meet the current design standards as well as improve the hydraulic capacity of the area.

### **Dowd Road Bridge at Yankee Slough**

The new bridge improves the hydraulic capacity of the area, while providing a bridge and roadway approaches designed to current standards.

*Figure 2-3 Dowd Bridge Prior to Replacement*



Source: Placer County

### 2.3.2. 2010 Mitigation Strategy Update

The 2010 mitigation strategy contained 113 separate mitigation actions benefiting one or more communities within the Placer County Planning Area. Of these 113 actions, 16 have been completed, 5 are completed but are still ongoing, 64 are ongoing, 14 are ongoing but not yet started, and 14 have not been started. Because many of these projects, such as the various fuels management projects, are implemented on an annual or other continuous basis and some of the projects have yet to be funded or have otherwise not been initiated, 80 2010 projects have been identified for inclusion in this plan update. Another 34 were determined not to be viable projects due to a variety of reasons, including funding availability, resulting in a lack of priority.

Table 2-1 provides a status summary of the mitigation action projects from the 2010 LHMP. Following the table is a description of the status of each project.

*Table 2-1 Placer County’s 2010 LHMP Update: Mitigation Action Status Summary*

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
<b>County Mitigation Actions</b>				
Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	X			X
Replacement of the Alpine Meadows Road Bridge over the Truckee River		X		
Inspection of Bridges Less than 20 Ft in Length		X		
Replacement of the Walerga Road Bridge over Dry Creek		X		
Replacement of Yankee Jims Road Bridge over the North Fork of the American River		X		
Generators for Sewer Pump Stations	X	X		
SCADA Systems	X	X		
Elevate Repetitive Loss Structures in 100-year Floodplain			X	X
Develop and Conduct a Multi-Hazard Seasonal Public Awareness Program		X		X
Continue and Maintain Noxious Weed Eradication Program		X		X
Placer County Noxious Vegetation Management in Land Conservatory		X		X
Placer County Low Intensity Development Program	X			
Establish Additional Fire Safe Councils on the Western Slope		X		
Placer County Chipper Program Operational Funds		X		X
Firewise Communities/USA Educational Outreach		X		X
Establish the “Rural Lincoln Fire Safe Council”	X			

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
Hazardous Vegetation Abatement Program		X		X
Shaded Fuel Break Establishment and Maintenance in Hidden Falls Regional Park		X		
Biomass Removal Projects		X		
Provide Fire Protection Water Source in Sheridan	X			
Develop a Community Wildfire Prevention Plan (CWPP) for West Placer County	X			
Maintenance on Shaded Fuel Breaks and Demonstration Fuel Breaks.			X	X
Annual Defensible Space Inspections Program in the Unincorporated County		X		X
Enhance Enforcement of County Building Codes to Increase Compliance with SB 1369 Defensible Space and Other Fire Safe Requirements in the Unincorporated County		X		X
Ensure That All Homes In The Placer County Foothills Have PRC 4290 Compliant Address Signs		X		X
Develop and fund an enforceable weed abatement program		X		X
Annual Multi-Agency Wildland Fire Drill.		X		X
Cooperative Fire Service Response Agreement for the Western Side of All Placer County Fire Agencies.	X			
<b>City of Auburn</b>				
GIS Based Mapping of Pertinent Information that can be Used by all Agencies in the Development of Plans and During Emergency Incidents			X	
GIS Mapping of Flood Zones within the City.			X	
Lincoln Basin (Downtown) Drainage Infrastructure		X		X
Creek and Stream Cleaning and Maintenance Program		X		X
Implementation of Storm Water Treatment Plan		X		X
Electric Street Diversion Project		X		X
Old Town Auburn Storm Drain System		X		X
American River Canyon Shaded Fuel Break		X		X
Community Education on Wildfire		X		X
Residential Home Inspections for Compliance of Fire Safe Standards; Defensible Space.		X		X
Maintenance of the Private Lands Portion of the Shaded Fuel Break Along the Rim of the American River Canyon and the Auburn State Recreation Area (ASRA)		X		X
<b>City of Colfax</b>				
Identify Un-Reinforced Masonry Buildings in the City			X	

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
Obtain Funding for a Residential Fuel Reduction Program (was Obtain Funding For A Residential Fire Protection Program in 2005 Plan)			X	
Evaluate the Need and Feasibility of Improving Fire Prevention for The Historic Business District		X		X
<b>City of Lincoln</b>				
Flood Warning System		X		
State Route 65: Auburn Ravine Bridge – Reconstruct Bridge			X	X
State Route 193: Auburn Ravine Bridge – Additional 110’ Span		X	X	X
Lakeview Farms Regional Volumetric Mitigation Improvements – Phase 1		X	X	X
Gladding Parkway, State Route 65, McCourtney Road Stream Restoration and Culvert Improvements.		X	X	X
“O” Street Drainage Improvements.		X	X	X
7th Street Drainage Improvements.		X	X	X
Auburn Ravine at State Route 193 Bridge.		X	X	X
Auburn Ravine at State Route 65 Bridge.		X	X	X
Ingram Slough – Orchard Creek return channel		X	X	X
Markham Ravine – Updated FEMA Analysis and Mapping.		X	X	X
Markham Ravine Drainage Improvements – Union Pacific Railroad and State Route 65 crossings.		X	X	X
Auburn Ravine Stream Restoration Projects (analysis and repairs).		X	X	X
Markham Ravine Streambed Restoration Projects (analysis only).		X	X	X
Coon Creek Streambed Restoration Projects (analysis only).		X	X	X
Fire Prevention and Fuels Management Plan		X	X	X
<b>City of Rocklin</b>				
GIS Based Mapping of Pertinent Information that can be Used by all Agencies in the Development of Plans and During Emergency Incidents		X		X
Open Space Fire Prevention & Vegetation Management Prescribed Grazing		X		X
<b>Town of Loomis</b>				
Address signage for property addresses		X		X
Delmar Avenue Headwall Reconstruction Project		X		X
Creek Maintenance Secret Ravine & Antelope Creek		X		X

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
Reconstruction of Brace Bridge at Secret Ravine		X		X
Raise Flood-Prone Houses Along Loomis Creeks		X		X
<b>Alpine Springs County Water District</b>				
Mineral Springs Soil Bank Stabilization Project		X		X
Alpine Meadows Consolidated Defensible Space Project	X	X		X
<b>Foresthill Fire Protection District</b>				
Completion of Fuels Management Projects Within the Foresthill / Iowa Hill Fire Safe Council, Greater Auburn Area Fire Safe Council and Placer Sierra Fire Safe Council Areas of the Western Slope of Placer County		X		X
Assess And Enhance Foresthill Fire Protection District (FFPD) New Subdivision, Hazard Fuels Clearing And Maintenance Ordinance. Put Programs In Place With Homeowners Associations In CC&R's And Maintenance Contracts		X		X
Todd Valley Shaded Fuel Break		X		X
Foresthill Biomass Project			X	X
Completion of Fuels Management Projects within Identified Areas of the Western Slope of Placer County		X		X
Completion of Fuels Management Projects Within the Foresthill / Iowa Hill Fire Safe Council, Greater Auburn Area Fire Safe Council and Placer Sierra Fire Safe Council Areas of the Western Slope of Placer County		X		X
<b>Nevada Irrigation District</b>				
Portable Generator Project	X			
Canal Culvert Replacement Program		X		X
Reservoir Cleaning		X		
<b>North Tahoe Fire Protection District</b>				
FCC P-25 Interoperability Radio Systems		X		X
District GIS Technology, Equipment, Database and Mapping Improvements		X		X
Emergency Radio Transmitters and Information Systems	X			
Evacuation Shelter Improvements			X	
North Tahoe Fire Protection District Critical Facility Infrastructure Improvements		X		X
North Tahoe Fire Protection District Headquarters Station Relocation and North Tahoe Command Center Development	X			
Seiche Wave Warning Systems, Signs and Public Education			X	X

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
Community Wildfire Protection Plan (CWPP) projects (was Completion of Fuels Management Projects on Various Parcels in the North Tahoe Fire Protection District, as Outlined in the North Tahoe Community Fire Protection Plan in 2005 plan)	X			
Defensible Space Inspection, Tree Marking, Chipping Program, and Public Education		X		X
Hazardous Wood Roof Replacement Program		X		X
Regional Water System Fire Protection Upgrades and Interoperability		X		X
Skid Steer Loader with Transport Trailer, Fuels Reduction Masticator Attachment and Snow Blower Attachment			X	X
Hydrant Risers, Replacements and Markers			X	X
<b>PCFCWCD/Placer County</b>				
Squaw Creek Restoration & Drainage Enhancement Project		X		X (County)
Elevate Remaining 95 Homes in the Dry Creek Watershed			X	X (County)
Pursue Regional Detention and Retention Projects within the Dry Creek and Cross Canal Watersheds.		X		X
Update Hydrology and Hydraulic Models within the Critical Dry Creek and Cross Canal Watersheds.	X (Dry Creek)	X (Cross Canal)		X (Cross Canal)
Implementation of Identified Bridge and Culvert Replacement Projects.		X		X (County)
Upgrade of Flood Warning System to Include Additional Gage Locations and Flood Forecasting Capabilities		X		X
<b>Placer County Water Agency</b>				
Maintain and Enhance Canal Systems by Converting Earthen Canals to Gunite-Lined Canals in Critical Areas		X		X
Replace Wooden Flume Structures with Steel Structures		X		X
De-Silt Reservoirs		X		X
<b>Placer Hills Fire Protection</b>				
Annual Defensible Space Inspections Program for the Placer Hills Fire Protection District (PHFPD)		X		
Assess and Enhance Placer Hills Fire Protection District (PHFPD) Onsite Water Requirements for Minor Lot Splits		X		X
<b>Squaw Valley Public Service District</b>				
East Booster Emergency Power	X			
Easement Abatement/Maintenance of Emergency Access		X		X

Jurisdiction/Mitigation Action	Complete	Ongoing	Not Started	Project in 2016 Update
Develop a Community-Wide Emergency Notification System			X	X
Water & Sewer System GPS Project	X			
SVPSD/Mutual Water Company Inter-tie Hazards		X		X
Water Tank Earthquake Retrofit Project		X		X
<b>Tahoe City Public Utility District</b>				
Seismic Stability Study and Retrofit	X			
Forest Fuel Reduction - Highlands	X			
Forest Fuel Reduction, Water, Sewer Pump & Lift Stations	X			
<b>Tahoe Truckee Unified School District</b>				
School Site and Community Education of Procedures Related to Safety and Emergency Situations. Improvement of District Wide Emergency Communication and Alert Systems.	X	X		X
HVAC Control Upgrades		X		
Forest Thinning Around Lake Area Schools		X		
Structural Upgrades of Roofs at School Sites to Support Higher Snow Loads.	X			X

## *Placer County Actions*

### **Integrate Local Hazard Mitigation Plan into Safety Element of General Plan**

**Progress to Date:** This was integrated into the Safety Element of the General Plan in 2013. Although the LHMP was completed in 2010, incorporation into the General Plan took a while due to the update schedule and General Plan update process.

### **Replacement of the Alpine Meadows Road Bridge over the Truckee River**

**Progress to Date:** The construction contract for the bridge replacement was awarded; construction is currently underway with construction anticipated to be complete by 12/2015.

### **Inspection of Bridges Less than 20 Ft in Length**

**Progress to Date:** The County began to locate and compile a list of bridges less than 20-feet in length.

### **Replacement of the Walerga Road Bridge over Dry Creek**

**Progress to Date:** The new bridge has been designed and is waiting funding for construction. This project would construct a new bridge to meet the anticipated needs of this community. The proposed bridge will be raised to reduce flood related closures and improve emergency vehicle access during flood events. The County has convinced Caltrans to fund the bridge replacement project with federal aid at an 88.53%/11.47% federal / local ratio. The portion of the project scope that will be participating in the federal-aid program is still being finalized. Conceptual design has been completed (to approximately 30%) and the bridge type selection and roadway long approach has been approved by Caltrans. Environmental work, design, and utility coordination work is currently underway.

### **Replacement of Yankee Jims Road Bridge over the North Fork of the American River**

**Progress to Date:** We are just about complete with a Feasibility Study that looked at different options of replacement and the option of rehabilitating the existing bridge. It was determined early on that rehabilitation of the existing structure was not feasible and the study has narrowed down the proposed alignment of the replacement bridge and roadway approaches as well as narrowed it down to three bridge types with a recommended alternative. The next phase will be to complete the report and submit it to Caltrans and the Technical Advisory Committee (TAC) for review and comment. Then we will move forward with the environmental and design phase.

### **Generators for Sewer Pump Stations**

**Progress to Date:** The following emergency generators were installed:

- New Sheridan water well 2014
- Applegate Pump Station 2013
- SMD 3 Pump Station 2015
- Saddleback Pump Station 2015

Additional generators will be installed at other pump stations as funding becomes available.

### SCADA Systems

**Progress to Date:** The following SCADA systems were installed:

- Russell Road
- Union Hall
- Cavitt Stallman
- Lawrence

Additional systems will be installed at other pump stations as funding becomes available

### Elevate Repetitive Loss Structures in 100-year Floodplain

**Progress to Date:** No progress to report. There appears to be a general lack of interest from the affected public in pursuing flood elevation projects, likely due to the lack of any significant flooding event in the past 15 years. There has also been a lack of grant funding to assist with the projects.

### Develop and Conduct a Multi-Hazard Seasonal Public Awareness Program

**Progress to Date:** This is an ongoing project. This program addressed all hazards of concern with an emphasis on severe weather, drought, wildfire, and flood hazards since 2010. Examples include regular meetings and outreach associated with the Fire Safe Alliance group and the pre-flood season meeting with multiple agency stakeholders for the flood outlook and associated issues. Other mechanisms include information on the County website, and local education and outreach projects through multiple departments through local community events. Moving forward, this program will work on becoming less fragmented, more collaborative within the County especially with the establishment of the Communications Division of the County PIO.

### Continue and Maintain Noxious Weed Eradication Program

**Progress to Date:** The Placer County noxious weed eradication program is an ongoing program administered by the County Department of Agriculture. Given the value of the Ag industry to the County, this program will remain a priority and will be implemented on an annual basis subject to funding constraints.

### Placer County Noxious Vegetation Management in Land Conservatory

**Progress to Date:** The only work has been the actions to develop programs to remove Scotch Broom. Meadow Vista has an annual event (2015 was the third annual event), and RCD and the Fire Safe Alliance team has worked with PG&E to procure weed wrench's to assist in the remove of the plant. RCD is working to develop a loan program to support individual property owner projects.

## Placer County Low Intensity Development Program

**Progress to Date:** A LID Guide for the Sierra Nevada was completed in 2012. An effort is currently underway to develop LID design standards that will assist in implementing requirements of applicable National Pollutant Discharge Elimination (NPDES) permits. This effort is being led by CDRA Planning, so they should be able to provide further information regarding schedule.

## Establish Additional Fire Safe Councils on the Western Slope

**Progress to Date:** The “Greater Lincoln Fire Safe Council” was formed in January 2010. Other communities are encouraged to establish Fire Safe Councils. This project is ongoing.

## Placer County Chipper Program Operational Funds

**Progress to Date:** The Placer County Chipper program continues. A \$430K grant was received from the SRA Grant program to continue to support the program through 2017. The County also received funds to purchase a track chipper, which will allow the program to expand and include areas away from road access and encourage landscape fuel treatment options.

## Firewise Communities/USA Educational Outreach

**Progress to Date:** In 2014 Placer County approved funding to hire a “Firewise Coordinator”. The coordinator is active in all of the Fire Safe Council area and to date has 4 nationally recognized Firewise community, and is working with 12 additional communities. All 12 communities are involved in the process and we anticipate all of them will achieve their goal of receiving their recognition.

## Establish the “Rural Lincoln Fire Safe Council”

**Progress to Date:** Greater Lincoln Fire Safe Council” was formed in January 2010.

## Hazardous Vegetation Abatement Program

**Progress to Date:** The Placer County HVA Ordinance originally started in 2007 as a pilot program in the Lake Tahoe area. In 2010 or thereabouts, the program was extended to all but three Fire Protection Districts and then in 2012 was accepted by all FPD’s as a Countywide ordinance. To date, all HVA events have been mitigated by the land owner, with none requiring the County to mitigate the properties.

## Shaded Fuel Break Establishment and Maintenance in Hidden Falls Regional Park

**Progress to Date:** The County received a \$506,207.00 from the Sierra Nevada Conservancy (SNC) to create a series of strategically placed shaded fuel breaks across Hidden Falls Regional Park and project status shows complete and fully paid as of 5/12/2012

## Biomass Removal Projects

**Progress to Date:** Multiple Biomass removal projects are performed annually in both the eastern side of the county in the Lake Tahoe region and the western slope of the county mainly in Foresthill region and the upper American River Watershed. These projects are typically in partnership with the USFS and involve grant funds from various organizations and agencies including Placer County, Sierra Nevada Conservancy, Tahoe Conservancy, California State Parks, Placer County Air Pollution Control District and others. Generally, several projects on each side of the county are performed and typically involve the collection, grinding and hauling of 2 to 3 thousand bone dry tons (BDT) per project. The air quality emissions reductions for each project (due to the conversion from open pile burning to energy production) have been shown to be significant to the region. Placer County, as a part of their Strategic Plan for Biomass utilization, intends to continue this practice throughout the span of this plan. This project will not be carried forward in the Plan Update.

## Provide Fire Protection Water Source in Sheridan

**Progress to Date:** The Sheridan Water Supply Improvements Project was completed in 2014. The project upgraded the public water system in the community of Sheridan, located in unincorporated western Placer County. The project included the development of a new groundwater well, water storage tank, pump station, supporting infrastructure, and pipeline upsizing from Camp Far West road to the Sheridan Elementary School to ensure flows to the school meet State fire flow requirements.

## Develop a Community Wildfire Prevention Plan (CWPP) for West Placer County

**Progress to Date:** The 2007 CWPP for the Western Slope of Placer County was updated in 2012. As part of the update, funding was approved to include the Greater Lincoln Fire Safe Council area. The four FSC's and the Fire Alliance are current doing their annual update of the fuels management and public education projects.

## Maintenance on Shaded Fuel Breaks and Demonstration Fuel Breaks.

**Progress to Date:** This project has not been started, but the desire exists to start the maintenance projects. This will be carried forward in the plan update.

## Annual Defensible Space Inspections Program in the Unincorporated County

**Progress to Date:** Cal Fire does have a seasonal hiring of SRA Fee funded defensible space inspectors. Cal Fire also maintains a master database in prevention of all defensible space inspections that are completed within the county. Placer Hills and other agencies are offered the option of providing us copies of their inspection results to be included in the database. Monthly inspection reports are provided to Sacramento.

## Enhance Enforcement of County Building Codes to Increase Compliance with SB 1369 Defensible Space and Other Fire Safe Requirements in the Unincorporated County

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

## Ensure That All Homes In The Placer County Foothills Have PRC 4290 Compliant Address Signs

**Progress to Date:** Foresthill Fire and Placer Hills Fire Protection District both have active low cost reflective signage projects. Cal Fire NEU has been actively seeking funding to create one for all State Responsibility Areas in the unit. Cal Fire defensible space inspectors currently include documenting compliant signage in their inspections and provide residents with education material.

## Develop and fund an enforceable weed abatement program

**Progress to Date:** The Placer County HVA Ordinance originally started in 2007 as a pilot program in the Lake Tahoe area. Around 2010 the program was extended to all but three Fire Protection Districts and then in 2012 was accepted by all FPD's as a County wide ordinance. To date, all HVA events have been mitigated by the land owner, with none requiring the County to mitigate the properties.

## Annual Multi-Agency Wildland Fire Drill.

**Progress to Date:** The Western Placer County Fire Chief's Association sponsors annually an interagency wildland drill that fulfills the annual fireline safety refresher (RT-130) training that is required for all personnel assign to positions with fireline duties in order to maintain currency. Agencies participating include Auburn City, South Placer, Placer Hills, Rocklin, Roseville and CAL FIRE.

Placer County also participates in an annual multi-agency wildland drill that includes participants from Nevada, Yuba, Placer, Sacramento and Sierra Counties and includes CAL FIRE, California Highway Patrol (CHP) and the U.S. Forest Service. This training provides a critical opportunity for agencies to work together and fulfill mandatory training requirements.

## Cooperative Fire Service Response Agreement for the Western Side of All Placer County Fire Agencies.

**Progress to Date:** This project was completed in December of 2015. The yearly RT-130 Wildland Refresher has been conducted every year for the past twenty years and is a multi-jurisdictional and sometimes multi county drill. The Western Placer County Fire Chiefs Association Training Officers is responsible for the planning and coordination of this yearly training.

## *City of Auburn*

### **GIS Based Mapping of Pertinent Information that can be Used by all Agencies in the Development of Plans and During Emergency Incidents**

**Progress to Date:** This project is not yet started and is not considered a viable action going forward.

### **GIS Mapping of Flood Zones within the City.**

**Progress to Date:** This project is not yet started and is not considered a viable action going forward.

### **Lincoln Basin (Downtown) Drainage Infrastructure**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Creek and Stream Cleaning and Maintenance Program**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Implementation of Storm Water Treatment Plan**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Electric Street Diversion Project**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Old Town Auburn Storm Drain System**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **American River Canyon Shaded Fuel Break**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Community Education on Wildfire (was Action #3 – Public Education of the Results of a Wildfire in a Community and What Can Be Done by Citizens in Developing Safeguards)**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### **Residential Home Inspections for Compliance of Fire Safe Standards; Defensible Space.**

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

## Maintenance of the Private Lands Portion of the Shaded Fuel Break Along the Rim of the American River Canyon and the Auburn State Recreation Area (ASRA)

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

## *City of Colfax*

### **Identify Un-Reinforced Masonry Buildings in the City**

**Progress to Date:** The identity of the un-reinforced masonry building within the City of Colfax was not completed. The City resources were limited due to the recession, therefore, funding was not available to start the project. This project will not be carried forward in the Plan Update.

### **Obtain Funding for a Residential Fuel Reduction Program (was Obtain Funding For A Residential Fire Protection Program in 2005 Plan)**

**Progress to Date:** Obtaining funding for a residential fuel reduction program did not get completed in the 2010 annex time frame. Resources to pursue grant funding was limited, therefore, the City was unable to obtain grant funding. This project will not be carried forward in the Plan Update.

### **Evaluate the Need and Feasibility of Improving Fire Prevention for The Historic Business District**

**Progress to Date:** Ongoing. Initial attack pre-plans for 13 buildings encompassing 37 businesses have been completed within Colfax City limits. The pre-plan effort within the Historic Business District is approximately 40% complete as of 2015. Will be carried forward in this Plan Update.

## *City of Lincoln*

### **Flood Warning System**

**Progress to Date:** All City creek monitoring is done through Placer County Flood Control District. This project will not carry forward in the plan update.

### **State Route 65: Auburn Ravine Bridge – Reconstruct Bridge**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **State Route 193: Auburn Ravine Bridge – Additional 110' Span**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Lakeview Farms Regional Volumetric Mitigation Improvements – Phase 1**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Gladding Parkway, State Route 65, McCourtney Road Stream Restoration and Culvert Improvements.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **“O” Street Drainage Improvements.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **7th Street Drainage Improvements.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Auburn Ravine at State Route 193 Bridge.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Auburn Ravine at State Route 65 Bridge.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Ingram Slough – Orchard Creek return channel**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

### **Markham Ravine – Updated FEMA Analysis and Mapping.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

**Markham Ravine Drainage Improvements – Union Pacific Railroad and State Route 65 crossings.**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

**Auburn Ravine Stream Restoration Projects (analysis and repairs).**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

**Markham Ravine Streambed Restoration Projects (analysis only).**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

**Coon Creek Streambed Restoration Projects (analysis only).**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

**Fire Prevention and Fuels Management Plan**

**Progress to Date:** This project is ongoing but not yet started. It will carry forward in this Plan Update.

## *City of Rocklin*

### **GIS Based Mapping of Pertinent Information that can be Used by all Agencies in the Development of Plans and During Emergency Incidents**

**Progress to Date:** The City has now funded a full-time GIS analyst position and several part-time positions to expand its GIS system and database, including infrastructure and pre-emergency data. This project is ongoing. It will be carried forward in this Plan Update.

### **Open Space Fire Prevention & Vegetation Management Prescribed Grazing**

**Progress to Date:** The City has continued to use grazing as a management approach to hazard mitigation in open space areas prone to wildfire. The program has expanded to allow the use of prescribed grazing on privately-owned open space lands. This project is ongoing. It will be carried forward in this Plan Update.

## *Town of Loomis*

### Address signage for property addresses

**Progress to Date:** This project is ongoing. It will carry forward in this Plan Update.

### Delmar Avenue Headwall Reconstruction Project

**Progress to Date:** This project is ongoing. It will carry forward in this Plan Update.

### Creek Maintenance Secret Ravine & Antelope Creek

**Progress to Date:** This project is ongoing. It will carry forward in this Plan Update.

### Reconstruction of Brace Bridge at Secret Ravine

**Progress to Date:** This project is ongoing. It will carry forward in this Plan Update.

### Raise Flood-Prone Houses along Loomis Creeks

**Progress to Date:** This project is ongoing. It will carry forward in this Plan Update.

## *Alpine Springs County Water District*

### **Mineral Springs Soil Bank Stabilization Project**

**Progress to Date:** This project has not been completed due to the lack of funding and the need to coordinate with Placer County on road improvements. Due to the last several years of low rain and snow fall the flows in Bear Creek have not continued the erosion which threatens to undercut the road and the water and sewer mains located in the road. This project will be carried forward in this Plan Update.

### **Alpine Meadows Consolidated Defensible Space Project**

**Progress to Date:** The project was completed in August 2012 after receiving a \$176,375.00 Grant from the Sierra Nevada Conservancy District. This project will be carried forward in this Plan Update as a continuation project.

### *Foresthill Fire Protection District*

**Completion of Fuels Management Projects within the Foresthill/Iowa Hill Fire Safe Council, Greater Auburn Area Fire Safe Council and Placer Sierra Fire Safe Council Areas of the Western Slope of Placer County**

**Progress to Date:** This project is ongoing. Grants are pending to complete this work. This project will be carried forward in this Plan Update.

**Assess And Enhance Foresthill Fire Protection District (FFPD) New Subdivision, Hazard Fuels Clearing And Maintenance Ordinance. Put Programs in Place with Homeowners Associations in CC&R's And Maintenance Contracts**

**Progress to Date:** This project is ongoing. Grants are pending to complete this work. This project will be carried forward in this Plan Update.

### **Todd Valley Shaded Fuel Break**

**Progress to Date:** Todd Valley plan is in place. Currently waiting for grant approval. Project will begin upon funding. This project will be carried forward in this Plan Update.

### **Foresthill Biomass Project**

**Progress to Date:** Biomass project is being discussed at the County level. This project will be carried forward in this Plan Update.

**Completion of Fuels Management Projects within Identified Areas of the Western Slope of Placer County**

**Progress to Date:** This project is ongoing pending grants and funding. This project will be carried forward in this Plan Update.

**Completion of Fuels Management Projects within the Foresthill/Iowa Hill Fire Safe Council, Greater Auburn Area Fire Safe Council and Placer Sierra Fire Safe Council Areas of the Western Slope of Placer County**

**Progress to Date:** This project is ongoing pending grants and funding. This project will be carried forward in this Plan Update.

## *Nevada Irrigation District*

### Portable Generator Project

**Progress to Date:** The District purchased a 500 KW portable generator to power critical water distribution and supply pump stations during extended outages. The purchase was made in 2013 and has been utilized during a number of power outages. This project is complete.

### Canal Culvert Replacement Program

**Progress to Date:** The District has over 2,000 culverts within its canals to facilitate crossings. Many of these culverts have met their life expectancy and are beginning to fail. A failure of one of these crossings presents a threat to both the public trying to cross the canal, as well as jeopardizing the water supply to District customers. This project is being carried forward in this Plan Update.

### Reservoir Cleaning

**Progress to Date:** The District is still actively working on reservoir sedimentation removal. Much of the CEQA documentation has been completed and the District is awaiting favorable hydrologic conditions to move forward. Current drought conditions have made the draining of reservoirs a challenge.

## *North Tahoe Fire Protection District*

### FCC P-25 Interoperability Radio Systems

**Progress to Date:** This project is ongoing and will be carried forward in the Plan Update.

### District GIS Technology, Equipment, Database and Mapping Improvements

**Progress to Date:** NTFPD and MBFD received a \$170.00 federal grant to purchase and place into service mobile data terminals and associated mapping technology and wireless communication improvements to enhance emergency response capabilities for district vehicles. This project is in the final stages of installation and completion. When fully implemented, these improvements will greatly enhance emergency response and incident management capabilities. This project is ongoing and will be carried forward in the Plan Update.

### Emergency Radio Transmitters and Information Systems

**Progress to Date:** This equipment has been purchased and is in service in district operations for several years as 2015.

### Evacuation Shelter Improvements

**Progress to Date:** Not started. No funding available at present.

### North Tahoe Fire Protection District Critical Facility Infrastructure Improvements

**Progress to Date:** District is seeking additional funding to replace aged and dilapidated infrastructure of its fire stations and related facilities. This project will be carried forward in the Plan Update.

### North Tahoe Fire Protection District Headquarters Station Relocation and North Tahoe Command Center Development

**Progress to Date:** In May 2008 the NTFPD entered into a lease agreement with CAL FIRE to staff the NTFPD Carnelian Bay Fire Station during the fire season. This arrangement has resulted in a staffed Type 3 CAL FIRE Engine available for response to all-risk incidents within the NTFPD boundaries and the surrounding areas. Over subsequent years, this relationship has continued to strengthen between both agencies and in 2015 resulted in a long term year round lease facility agreement between the two agencies. As of 2015, CAL FIRE is staffing the station with suppression personnel and equipment (during fire season) and prevention and administrative staff year round.

### Seiche Wave Warning Systems, Signs and Public Education

**Progress to Date:** Not started. No funding available at present. This project will be carried forward in the Plan Update.

## Community Wildfire Protection Plan (CWPP) projects (was Completion of Fuels Management Projects on Various Parcels in the North Tahoe Fire Protection District, as Outlined in the North Tahoe Community Fire Protection Plan in 2005 plan)

**Progress to Date:** Completed 2015

## Defensible Space Inspection, Tree Marking, Chipping Program, and Public Education

**Progress to Date:** Ongoing program. Additional funding would allow for the program to be developed further with greater outreach. This project will be carried forward in the Plan Update.

## Hazardous Wood Roof Replacement Program

**Progress to Date:** Ongoing program as development opportunities present to require compliance and upgrades to existing structures in the District. This project will be carried forward in the Plan Update.

## Regional Water System Fire Protection Upgrades and Interoperability

**Progress to Date:** The District contains several small water districts that lack adequate funding to upgrade infrastructure and service to meet fire suppression needs. Additional funding would provide opportunities to increase service and reliability of these systems and provide for inter-operability between systems during large scale incidents. This project will be carried forward in the Plan Update.

## Skid Steer Loader with Transport Trailer, Fuels Reduction Masticator Attachment and Snow Blower Attachment

**Progress to Date:** Not started. No funding available at present. This project will be carried forward in the Plan Update.

## Hydrant Risers, Replacements and Markers

**Progress to Date:** Not started. No funding available at present. As development opportunities arise, the district requires upgrades to meet current standards. This project will be carried forward in the Plan Update.

## **Squaw Creek Restoration & Drainage Enhancement Project**

**Progress to Date:** Placer County Planning Department and its partners have completed restoration design plans for the project and are now seeking funding for implementation. Additionally, the Placer County Flood Control and Water Conservation District, in cooperation with FEMA have produced updated hydrology and hydraulic studies of Squaw Creek which will be referenced over the next two years as FEMA and its study contractor produce updated and detailed floodplain maps (Flood Insurance Rate Maps or FIRM).

## **Elevate Remaining 95 Homes in the Dry Creek Watershed**

**Progress to Date:** No change or specific progress has been made. This project was reviewed as part of the updated Dry Creek Watershed Flood Control Plan completed in 2011. Available funding and homeowner interest in cost sharing remain a concern. Funding of \$6 million necessary is not available within Dry Creek Trust Fund and would likely only be available thru Federal or State grant sources. A more realistic schedule is within 5 years instead of 3 years. Homes are still at risk of flooding if they are not elevated. Other than elevating the structure, alternatives include; acquisitions/relocations, dry flood proofing of non-residential structures, minor localized flood control projects, and demolition of NFIP-insured structures on acquired or restricted real property.

There appears to be a general lack of interest from the affected public in pursuing flood elevation projects, likely due to the lack of any significant flooding event in the past 15 years. The recently enacted federal Biggert Waters Flood Control Act of July 2012 and the recent FHA 203k Home Rehab Loan Program may encourage certain homeowners with existing NFIP policies to elevate their homes and businesses in the near future in order to avoid large insurance rate increases that will come about as a result of this act.

## **Pursue Regional Detention and Retention Projects within the Dry Creek and Cross Canal Watersheds.**

**Progress to Date:** The August 2003 dated feasibility study identifying possible flood control project sites along Secret Ravine has been found to be unreliable due to faulty assumptions within the hydraulic models utilized in the study. The only significant regional flood control plan update since 2010 is the 2011 Updated Dry Creek Watershed Flood Control Plan. The Dry Creek Watershed Flood Control Plan provides a detailed hydrological analysis of the watershed, provides recommendations for feasible regional flood control projects, means to mitigate development projects, and recommends an updated facility plan and fee program. The updated plan identified new recommended sites for regional flood control projects, including the top ranked Antelope Creek Flood Control project along Antelope Creek between Atlantic Street and the Highway 65 overpass. The District is still working on plans to complete a project in this watershed.

Within the Cross Canal Watershed, while no updates to the existing 1994 dated flood control plan have occurred, County and District staff continues to pursue the single viable regional retention project, termed the Scilacci Farms project, along Coon Creek near the Placer/Sutter County line. Staff continue to pursue

grant funding sources to fund this estimated \$3.3 million dollar project but have so far been unsuccessful despite three separate attempts to receive grant awards from State programs

For the on-going Antelope Creek Flood Control Project, this project has received all agency permits (except the 404, anticipated by December 2015) and is otherwise shovel ready with a construction bid package ready to be released just as soon as the County can fill a \$600,000 construction funding shortfall. This is a multi-objective water efficiency and regional flood control improvement project proposed within the Dry Creek Watershed area of the American River Basin. This project includes the first phase of a two-phase project. The first phase would include the concrete gunite lining of approximately 3,300 lineal feet of Antelope Canal and the construction of one (in a future series of two) on-channel flood control weirs on Antelope Creek. The project will conserve up to 125 acre-feet per year, reduce the amount of erosion in the watershed, and reduce peak flow from a 100-year storm event by 530 cubic feet per second (Phase 2 / Upstream Weir) on Antelope Creek near Atlantic Street in the City of Roseville.

### **Update Hydrology and Hydraulic Models within the Critical Dry Creek and Cross Canal Watersheds.**

**Progress to Date:** In 2011 the Placer County Flood Control and Water Conservation District updated the Dry Creek Watershed Flood Control Plan, including updating the hydrologic and hydraulic models of all creeks within this watershed. There has been no progress towards updating the 1994 dated Cross Canal Watershed flood control plan however, the District in cooperation with FEMA, has updated the hydrologic and hydraulic models for four creeks within this watershed. These include Pleasant Grove Creek, Curry Creek, Auburn Ravine and Orchard Creek. Over the next two years, FEMA and its study contractor will be producing detailed FIRM mapping of the 100-year floodplain along these four creeks.

### **Implementation of Identified Bridge and Culvert Replacement Projects.**

**Progress to Date:** The County has replaced several bridges including Cook Riolo, Barton Road, Watt Avenue, and Walgera. The County has also completed improvements in the Tahoe area through the creek restoration of Lake Forest Creek and Restoration of Snow Creek.

### **Upgrade of Flood Warning System to Include Additional Gage Locations and Flood Forecasting Capabilities**

**Progress to Date:** This project is ongoing. The District (as well as the County and the City of Roseville) have now received 2 separate grant awards from DWR under the Flood Emergency Response Program (FERP) that will allow the County to create the flood inundation and flood forecasting capabilities described in the 2010 HMP. It will also allow partial funding for an upgrade of the warning system to “ALERT 2” status, at least for the base stations and several gages. This work is underway and will likely be completed within a years timeframe or so.

## *Placer County Water Agency*

### **Maintain and Enhance Canal Systems by Converting Earthen Canals to Gunit-Lined Canals in Critical Areas**

**Progress to Date:** Historically the Agency has an on-call gunit contract and we continually improve canals based upon need. Typically out of the 165-miles of canal we are able to gunit a little less than 5-miles per year on average. The budget for gunit is a variable cost and the last few years' projects have been reduced due to drought and decreased funding from water sales. This project will be included in the plan update.

### **Replace Wooden Flume Structures with Steel Structures**

**Progress to Date:** While the Agency would like to enhance and enclose many of the flumes, it is likely that they will exist well into the future due to a community fondness for the structures, engineering challenges, and increased construction cost for improvement. The Upper Fiddler Green, Turner, Alpine, Lang #1 & #2, Spikes, Cherry Tree and Secret Town flumes have been replaced by a pipe. Ongoing analysis and improvement will occur where warranted and as feasible. This project will be included in the plan update.

### **De-Silt Reservoirs**

**Progress to Date:** Ongoing. Priority for desilting projects leans toward the Middle Fork Project where fire and subsequent erosion has created a problem that may span decades of impact upon the operation of the project. Sediment monitoring is being performed, but Emergency Debris Management for the Ralston Afterbay is a priority. The goal of desilting of smaller holding ponds and reservoirs on the canal system have been unobtainable because of the priority of protecting the dams, as well as environmental and logistical challenges for de-silting, and the ultimate cost of performing the work

## *Placer Hills Fire Protection*

### **Annual Defensible Space Inspections Program for the Placer Hills Fire Protection District (PHFPD)**

**Progress to Date:** This project is not being done as there is no funding for staff. CAL FIRE is doing inspections currently. It will not be carried forward in this plan update.

### **Assess and Enhance Placer Hills Fire Protection District (PHFPD) Onsite Water Requirements for Minor Lot Splits**

**Progress to Date:** This project is ongoing with each lot split and for development. This project will carry forward into the plan update.

## *Squaw Valley Public Service District*

### **East Booster Emergency Power**

**Progress to Date:** The East Booster Power Project was completed in 2011 with the assistance of Placer County Water Agency who provided a \$35,000 grant. The project was completed in house using District labor and equipment.

### **Easement Abatement/Maintenance of Emergency Access**

**Progress to Date:** The Easement Abatement Project is ongoing and about 90% complete. The District continues with public outreach and education. There are about a dozen properties remaining the District is working with to obtain compliance.

### **Develop a Community-Wide Emergency Notification System**

**Progress to Date:** The District participates in the reverse 911 notification system Teleminder which is now called Everbridge, however the installation of a message board is still a viable project.

### **Water & Sewer System GPS Project**

**Progress to Date:** The water and sewer system GPS project was completed in 2013 with production of new District base maps. The GPS information has been imported into the Districts GIS based maintenance and infrastructure management software VueWorks.

### **SVPSD/Mutual Water Company Inter-tie Hazards**

**Progress to Date:** The design portion of this project was completed in 2014 with assistance from the Placer County Water Agency who provided a \$10,000 grant.

### **Water Tank Earthquake Retrofit Project**

**Progress to Date:** This project was partially complete. The redwood tank was replaced in 2011. Retrofitting of the remaining tanks remains a priority, and that portion of the mitigation action will be carried forward in this plan update.

## *Tahoe City Public Utility District*

### Seismic Stability Study and Retrofit

**Progress to Date:** The seismic stability of these tanks was analyzed in reports prepared by Nolte Associates dated January 2006 and September 2010. Of the 11 analyzed tanks:

- One (1) was built in 2005 and is seismically stable and requires no retrofits (Upper Highlands).
- One (1) is seismically unstable and requires a major foundation and shell retrofit or requires a change in its operational water level (Lower Highlands).
- One (1) is seismically unstable and due to its age and material requires a complete replacement (Bunker).
- Eight (8) are seismically stable with minor improvements recommended.

All recommended operational changes have been made and the Bunker Tank is currently under design contract for replacement in 2016-17 time frame.

### Forest Fuel Reduction - Highlands

**Progress to Date:** Forest Fuels Reduction in the Highlands area was completed in 2010. In total, 17 acres of wildland urban interface was treated using mastication methods. This project was completed in conjunction with the California Tahoe Conservancy on lands they own directly adjacent. In total over 100 acres of land was treated between the two projects. This project was a success as it resulted in a more fire tolerant zone being created between in the wildland urban interface area of a heavily populated residential subdivision. Grant funding of approximately \$50,000 was secured for the project from the Nevada Fire Safe Council.

### Forest Fuel Reduction, Water, Sewer Pump & Lift Stations

**Progress to Date:** Forest Fuels Reduction at select Sewer and Water Pump and Lift Station Facilities was completed in 2010. In total, 8 facilities were treated by mastication and hand thinning methods. This project was a success as it resulted in a more fire tolerant zone being created around key public water and sewer infrastructure systems. Grant funding of approximately \$39,000 was secured for the project from the Nevada Fire Safe Council.

## *Tahoe Truckee Unified School District*

### School Site and Community Education of Procedures Related to Safety and Emergency Situations. Improvement of District Wide Emergency Communication and Alert Systems.

**Progress to Date:** This item has been completed, and is ongoing. The scope of work that had been identified for the 2010 LHMP has been completed, but we had to transition to a narrow-band frequency and radios in 2013. Additionally, education of procedures and improving our District's alert system is an ongoing, continually evolving effort.

### HVAC Control Upgrades

**Progress to Date:** The District in the process of putting out a controls RFP that would further upgrade the HVAC that was identified in the 2010 LHMP. The District's HVAC Controls will be an ever evolving process to assure that meet necessary environmental requirements, as well as energy efficiencies and occupant comfort levels.

### Forest Thinning Around Lake Area Schools

**Progress to Date:** This is an ongoing item due to time availability of project managers, and coordinate this work when we have other major projects occurring at the Lake Area School sites.

### Structural Upgrades of Roofs at School Sites to Support Higher Snow Loads.

**Progress to Date:** These projects have been completed.