

HUMBOLDT OPERATIONAL AREA HAZARD MITIGATION PLAN 5-YEAR PROGRESS REPORT, JANUARY 2008 – JANUARY 2013

SUMMARY OVERVIEW OF PROGRESS

The performance period for the *Humboldt Operational Area Hazard Mitigation Plan* began on January 25, 2008, with final approval of the plan by Region IX of the Federal Emergency Management Agency (FEMA). The performance period was 5 years, through January 2013, with an anticipated update to the plan to occur in 2013. The Hazard Mitigation Plan targeted 272 hazard mitigation initiatives to be pursued by participating planning partners during the performance period. As of the end of the period, the following overall progress can be reported:

- 39 out of 272 initiatives (14 percent) were reported as being complete.
- 147 out of 272 initiatives (54 percent) were reported as having ongoing action toward completion.
- 86 out of 272 initiatives (32 percent) were reported as having no action taken.
- The overall plan is considered to be 68 percent complete.

This progress report covers the full 5-year performance period. It was prepared by the Hazard Mitigation Planning Team. In accordance with Section 7.1 of the Hazard Mitigation Plan, the Hazard Mitigation Steering Committee reviewed and approved the report on May 1, 2013.

BACKGROUND

Humboldt County and its planning partners developed the *Humboldt Operational Area Hazard Mitigation Plan* to identify resources, information and strategies for reducing risk from natural hazards. The plan was developed in response to the federal Disaster Mitigation Act of 2000, which required state and local governments to develop hazard mitigation plans in order to be eligible for federal grant assistance. From July 2006 to October 2007, the planning partners organized resources, assessed risks from natural hazards, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address the probable impacts of natural hazards in the Humboldt Operational Area. By completing this process, the planning partners maintained their compliance with the Disaster Mitigation Act and thus remained eligible for hazard mitigation grant funding under the Robert T. Stafford Act. Copies of the plan are available to the public throughout the Humboldt County Public Library system. The plan can be viewed on-line at <http://co.humboldt.ca.us/natural-resources/hazardmitigation/>

Purpose of the Progress Report

The purpose of this progress report is to provide the governing bodies of the planning partners, stakeholders, and the citizens of the Humboldt Operational Area a report on implementation of the action plan identified in the Hazard Mitigation Plan. The objective of this evaluation is to ensure a continuing planning process that will keep the Hazard Mitigation Plan dynamic and responsive to the needs and capabilities of the planning partners as well as providing the Steering Committee information on needs for improvements through the plan update process. This report discusses the following:

- Hazard events that occurred within the performance period
- Changes in risk exposure within the planning area
- Changes in capability within the planning area that could impact plan implementation
- Mitigation success stories
- Review of the action plan
- Recommendations for changes or enhancements.

The Steering Committee

A steering committee made up of planning partners and stakeholders in the planning area oversaw development of the Hazard Mitigation Plan, and it was decided that a steering committee would remain in place to oversee maintenance of the plan, as established in Chapter 7. This body is organized according to established ground rules, but its membership is dynamic. Membership turnover is monitored via the progress reporting mechanism. The Steering Committee’s role in overall plan implementation is also dynamic, based on the planning area’s hazard mitigation needs. At a minimum, the Steering Committee provides technical review and oversight on the development of a progress report. Table 1 lists the current Steering Committee membership.

TABLE 1. STEERING COMMITTEE MEMBERS		
Name	Jurisdiction/Agency	Title
Jay Parrish ^a	City of Ferndale	City Manager
Hank Seeman ^b	Humboldt County	Director of Public Works
Bill Gillespie	City of Eureka	Assistant Fire Chief
Karen Diemer	City of Arcata	Deputy Director of Environmental Services
Lou Iglesias	Weott Community Services District	District Board Member
John Friedenbach	Humboldt Bay Municipal Water District	Business Manager
Daniel Larkin	Humboldt County Office of Emergency Services	Emergency Services Coordinator
Jody Brundin	Blue Lake Rancheria Office of Emergency Services	Emergency Manager
Chris Jones Koczera	Red Cross Humboldt County Chapter	Disaster Chair
Stephen Underwood	Fortuna Fire Protection District	
Desmond Cowan	Arcata Fire Protection District	Assistant Fire Chief
Judith A. Warren	Humboldt State University, Regional Training Institute; Community Disaster Preparedness	Regional Coordinator
Tom Nix	Cal Fire	Battalion Chief
Allison Talbott	Pacific Gas and Electric	Government Relations
a. Steering Committee Chairperson		b. Steering Committee Vice Chairperson

HAZARD EVENTS DURING THE PERFORMANCE PERIOD

The following hazard events occurred within the planning area during the performance period:

- Declared Emergencies:
 - **December 6, 2007 – October 28, 2008:** The Martins Ferry Bridge was closed due to structural instability, causing some residents of the Weitchpec area to be virtually isolated. An extensive effort to open a detour route on Dowd Road commenced and lasted through April 2008. Bridge repairs continued through the end of 2008. The County received a Gubernatorial Proclamation.
 - **June 20, 2008 – October 21, 2008:** A lightning storm produced many hundreds of wildfires throughout Northwestern California. In Humboldt County, an initial significant fire near Shelter Cove (Paradise Fire) resulted in partial evacuations and a concerted firefighting response. A later significant fire south of Willow Creek (Hells Half Fire) also resulted in evacuations and firefighting efforts. Due to the many large fires burning in and near Humboldt County, a significant health hazard to the public due to smoke was recognized and addressed. The smoke issue was most acute in the Hoopa, Karuk, and Yurok tribal areas or northeastern Humboldt County. The County received a Gubernatorial Proclamation.
 - **July 21, 2009 – November 10, 2009:** The County Emergency Operation Center (EOC) partially activated to support the Board of Supervisors' proclamation of a local emergency in the Redway Community Services District. Extended drought conditions and river water channel movement diminished the District's ability to supply adequate water to Redway-area residents. State resources were leveraged to support the District's water collection improvements.
 - **January 9, 2010:** A Magnitude-6.5 earthquake occurred offshore from central Humboldt County. Approximately 30 people visited hospitals for minor injuries, and one major injury was reported. Damage to homes and commercial buildings was greatest in Eureka (foundation damage, cracked walls and driveways, toppled chimneys). Total damage to county roads was \$3.3 million. The County received a Gubernatorial Proclamation as a state-declared disaster.
 - **March 11, 2011:** The EOC activated in response to a tsunami warning issued for the coastal areas of California. The tsunami was a result of the Magnitude-9.0 great Tohoku earthquake that occurred off the east coast of the Japanese island of Honshu. Some residents of low-lying areas voluntarily evacuated. Many significant water fluctuation cycles were recorded, but there were no reports of damage or injuries in Humboldt County. The County received a Gubernatorial Proclamation as a state-declared disaster.
 - **March 30, 2011:** March 2011 storms were a state-declared disaster, after the monthly rainfall total (11.88 inches in Eureka) was the third highest for the month of March in recorded history. The storms caused extensive damage to public roads and impacted agricultural and dairy lands and other public and private property. Total damage to county roads was \$18 million. A massive landslide south of Blocksburg created a debris dam of earth and trees in Dobbyn Creek that diverted water onto Alderpoint Road and required major flood control efforts. A large landslide in the headwaters of Francis Creek south of Ferndale caused a major discharge of sediment and contributed to severe downstream flooding. A large landslide north of Redway near Dean Creek closed Highway 101 for several days and required over \$8 million in clean up and repair.
- Non-Declared Emergencies:

- **January 12, 2007:** A Magnitude-8.2 earthquake in the Kuril Islands resulted in a small tsunami striking the Humboldt County coastline. There was no damage reported in Humboldt County.
- **September 29, 2009:** A Magnitude-8.0 earthquake off the coast of American Samoa resulted in a small tsunami striking the Humboldt County coastline. There was no damage reported in Humboldt County.
- **February 27, 2010:** A Magnitude-8.8 off the coast of southern Chile resulted in a small tsunami striking the Humboldt County coastline. There was no damage reported in Humboldt County.

CHANGES IN RISK EXPOSURE IN THE PLANNING AREA

The Hazard Mitigation Plan addressed the probable impacts of the following natural hazard events in the planning area:

- Dam failure
- Drought
- Earthquake
- Fish losses
- Flood
- Landslide and other mass movements
- Severe weather
- Tsunami
- Wildland fire.

No natural hazard event occurred in the planning area during the performance period that would alter or change the probability of occurrence or ranking of risk for the natural hazards addressed by the Hazard Mitigation Plan.

CAPABILITY CHANGES IN THE PLANNING AREA

During the performance period, there were no significant capability changes of jurisdictions in the planning area that would have a profound impact on implementation of the plan. All technical, regulatory and financial capabilities identified by the planning partners during the plan's development remain in place.

MITIGATION SUCCESS STORIES

Firewise Communities

The National Fire Protection Association's Firewise Communities program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action to prevent losses. The program provides many tools and resources to communities. While Humboldt County is not an eligible entity for recognition as a Firewise Community it has assisted local communities in the recognition process. County staff coordinates with Cal Fire staff to provide technical and education support for local communities working to become recognized Firewise Communities. Six communities in Humboldt County have successfully achieved and maintained Firewise recognition: Bridgeville, Honeydew, Orleans, Petrolia, Upper Jacoby Creek, and Willow Creek.

Firewise assessments and action plans serve as excellent tools for communities to collaboratively learn about and identify actions to address local wildfire hazards. Firewise provides an opportunity for communities to raise awareness about wildfire risks and to showcase what they are doing to mitigate those risks. Community Firewise events have been used in Humboldt County to share the results of successful projects such as a new or updated local fire plan, educational brochures or videos, or mechanical treatments and prescribed burns to manage hazardous vegetation and improve health.

Managing Wildfire Fuels

Humboldt County has received \$495,000 in grant funds from the U.S. Forest Service to support the Fire-Adapted Landscapes and Safe Homes (FLASH) program. The program encourages property owners to mitigate wildfire hazards through vegetation management by awarding a rebate for the creation of defensible space around homes and strategic fuel breaks along escape routes and high-risk areas.

Thus far, hazardous vegetation on slightly over 350 acres of land has been treated to reduce the wildfire risk for homesteads and access routes. Nearly 200 landowners completed work on their properties or are currently enrolled in the program. By the end of the year, 150 additional acres are slated for treatment. This program has significantly mitigated wildfire hazards for participating property-owners and has provided a lasting education that will result in continued vegetation management. There have also been indirect mitigation benefits as participants learn about and implement other fire-safe actions, such as hardening their home ignition zone with fire-resistant building materials, fire-safe landscaping, and improved firefighting water systems. These actions are all recommended as part of a home risk assessment associated with the FLASH program.

Tsunami and Earthquake Hazard Mitigation

The Redwood Coast Tsunami Work Group (RCTWG), formed in 1996, is an organization of local, state, tribal and federal agencies, nongovernmental organizations, and businesses from Del Norte, Humboldt and Mendocino Counties that works to mitigate the regional earthquake and tsunami hazard. RCTWG efforts include multi-agency coordination to develop clear, consistent messaging and community preparedness and education outreach programs. The Western States Seismic Policy Council recognized the RCTWG for its mitigation efforts in 2009 with an award in Excellence for Innovation.

RCTWG has developed educational materials and programs, including the Living on Shaky Ground preparedness magazine and class, regionally specific tsunami brochures in English and Spanish, and community outreach at fairs and workshops. RCTWG member entities have achieved Tsunami Ready status for five communities in Humboldt County and have assisted communities in organizing and conducting evacuation drills to prepare for a tsunami emergency. They have also taken a leadership role in the annual execution of the largest and most comprehensive test of the tsunami warning system in the nation for the past five years. The RCTWG, working closely with the California Geological Survey, has contributed to mapping of the tsunami risk for Humboldt County, developing evacuation maps. The group has provided technical support for the installation of over 400 tsunami signs to educate the public about the tsunami zone.

Seismic Retrofits

In response to significant earthquake hazards, many jurisdictions in Humboldt County have taken action in the past five years to mitigate their risk of damage. Ten jurisdictions have taken steps toward seismic retrofitting critical facilities, such as water storage areas, fire stations, emergency operation centers, and wastewater treatment facilities. This is important work for Humboldt County which is subject to seismic activity. The intersection of three tectonic plates—the North American Plate, the Pacific Plate, and the Gorda Plate—takes place just off the shore of Cape Mendocino. This tectonic intersection, known as the

Mendocino Triple Junction, has the highest concentration of earthquake events anywhere in the continental United States. The local seismic setting has the potential to cause significant ground shaking, which can lead to liquefaction and subsidence hazards, near-shore tsunamis, landslide hazards, and surface fault ruptures.

Improvements in Emergency Services

A Type 2 urban search and rescue (USAR) team has been established within the Humboldt Operational Area after years of planning, supported by significant training efforts, grant funding, and the placement locally of a California Emergency Management Agency (Cal EMA) medium-cache USAR trailer. This is an important capacity for this earthquake-prone area that has the potential for being cut off from larger population centers after a large event. Citizens will need to depend on their own resources, and post-earthquake search and rescue in urban areas will be very important.

Also, two technical rescue teams are operating in the planning area, which is a related capability improvement. Another emergency-services improvement is the establishment of a regional fire training facility in Eureka. In 2012, the regional fire training facility received state accreditation as a Rescue Systems 2 training site, making it one of the only sites in Northern California certified to teach these upper-level USAR and technical rescue courses. Over the course of 2012, training workshops were successfully conducted in the planning area to improve incident and interoperability communication between entities and to improve incident management and emergency operation center function. In November 2012, a large-scale training simulation partially coordinated by Cal EMA was held in Eureka and Samoa, depicting a major near-shore earthquake. Local resources from across Humboldt County participated, as did Cal EMA engines from Mendocino and Sonoma counties, the Marin USAR team, and the Marin Incident Management Team. All efforts have improved emergency services within the county.

Hazard Mitigation Grants

Humboldt Bay Municipal Water District

The Humboldt Bay Municipal Water District (HBMWD) was successful in obtaining one Hazard Mitigation Grant and is in the process of finalizing the National Environmental Protection Act analysis for a second Hazard Mitigation Grant. Funding in the amount of \$2.85 million was obtained to replace approximately 10,000 feet of HBMWD's 18-inch Techite pipeline from the Terminal Reservoir on Samoa to the Humboldt Bay Crossing, just before the pipe goes under the bay to the Humboldt Community Services District's (HCSD) Truesdale Pump Station. The existing Techite pipeline provides domestic water to approximately 7,400 people, including residents of the Samoa Peninsula and approximately 60 percent of the total domestic water used by the HCSD. The pipeline also provides an emergency intertie for the City of Eureka, which helps maintain Eureka's water supply in the event that an earthquake or other event damaged Eureka's primary water transmission lines. Techite is a fiberglass-wound pipe that has been found to fail catastrophically, leading to several lawsuits and the discontinuation of its production. This was one of the most important capital improvement projects identified by HBMWD, due to the pipeline's likelihood of failure, particularly during a large earthquake, and the potential resulting catastrophic and wide-ranging impact. The Hazard Mitigation Grant helps ensure project implementation and helps offset rate increase impacts on the community.

HBMWD is in the final processes of obtaining a Hazard Mitigation Grant to replace the Mad River crossing of the domestic water transmission main that feeds the City of Blue Lake and the Fieldbrook-Glendale Community Services District. The water supply pipeline to these communities currently crosses the Mad River as a 14-inch ductile iron pipe attached to a 1930s-era North Coast Railroad Authority bridge, which was not built to modern seismic standards. The bridge has not been used or maintained for many years, and if it fails, it will damage the HBMWD's pipeline and interrupt the sole domestic water

service to Fieldbrook and Blue Lake. Inspections found the railroad bridge to be in substandard condition and near the end of its functional life. This project will replace the bridge with an aerial overcrossing designed to meet current seismic codes. The \$2.27 million in Hazard Mitigation Grant funds will help ensure the replacement of this critical piece of Infrastructure.

City of Fortuna

The City of Fortuna is in the process of finalizing paperwork for a \$453,000 Hazard Mitigation Grant for the City's Wastewater Treatment Plant Flood Protection Project. The City's treatment plant is located on the banks of the Eel River, and portions of the plant are constructed within the FEMA 100-year floodplain. In addition, the City's gravity effluent outfall to Strongs Creek is below the 100-year flood elevation, which prevents discharge of treated effluent during some flood events. The City is proposing a flood protection project that includes a berm around the plant and construction of a treated effluent pump station. The pumps would be designed to supply pressure to the existing Strongs Creek effluent pipeline to allow the treatment plant to discharge during flood events.

Mad River Streambank Protection Project

Humboldt County completed a streambank stabilization project in 2008 along the right bank of the lower Mad River west of McKinleyville with funding from the USDA Natural Resources Conservation Service, the Governor's Office of Emergency Services, and adjacent landowners. Approximately 1,300 feet of streambank was damaged in December 2005 and January 2006 by high flows caused by severe storms, which were a federal- and state-declared disaster. The top of the bluff eroded to within 15 feet of a residence and was close to several other residences as well as public infrastructure (roads and water utilities). The project incorporated rock slope protection along with bioengineered components (live willow plantings) to enhance erosion resistance and stability for the damaged streambank while providing fish habitat and water quality benefits. Total project cost was \$1.6 million.

Arcata-Eureka Airport Bluff Stabilization Project

Humboldt County completed a bluff stabilization project in 2012 near the end of one of the primary runways at the Arcata-Eureka Airport to remediate cumulative losses of the runway safety area due to erosion and landsliding. Work included mechanically stabilized earth walls up to 70 feet high.

Emergency Water, Power and Communication Capabilities

Due to the remoteness of Humboldt County and limited accessibility through surrounding terrain, there is a strong possibility that communities could become cut off from outside aid and isolated from one another in the event of a catastrophic disaster. This possibility emphasizes the need for communities to be prepared for self-reliance for some time following a major disaster. Seven jurisdictions in Humboldt County have made such preparations within the last five years, prioritizing the acquisition of standby emergency power generators and building extra water storage supplies to ensure that critical facilities remain functional in such an event. Five jurisdictions have improved their alternative communication capabilities, including emergency transceivers, satellite telephones, and ham radios. This redundancy enhances the likelihood of being able to coordinate resources and assistance during a disaster, within the County and beyond.

REVIEW OF THE ACTION PLAN

Table 2 reviews the action plan for each planning partner, listing the status of each initiative. Part 4 of the plan provides more detailed descriptions of each initiative and the prioritization process. The table indicates the following for each initiative:

- Was any element of the initiative carried out during the performance period?
- If no action was completed, why?
- Is the timeline for implementation of the initiative still appropriate?
- If the initiative was completed, does it need to be changed or removed from the action plan?

RECOMMENDATIONS FOR CHANGES OR ENHANCEMENTS

The Hazard Mitigation Steering Committee has used this progress report as the basis for revising the Hazard Mitigation Plan during the plan update process in 2013. The changes are chronicled in Volume 1, Chapter 2 of the updated plan.

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
CITY OF ARCATA (A)				
A-1: Designate, prepare and announce emergency assembly points throughout the City.				
Yes	Short Term	No	Currently, emergency assembly points are being discussed at community centers and with Humboldt State University and are part of the City's emergency response plan	Ongoing
A-2: Adopt a long-term capital improvement plan.				
Yes	Long Term	No	CIP first adopted 2010; currently updating for Council approval, May 1, 2013	Ongoing
A-3: Improve hillside stability in landslide-prone areas utilizing feasible approaches that provide the highest degree of benefit for the least cost.				
No	Long Term	No	Not budgeted; no identified areas	No Progress
A-4: Conduct an updated dam failure flood routing analysis for City of Arcata Dam #2.				
Yes	Long Term	Yes	Not required, per Cal EMA. Have discussed with Humboldt State University housing and facilities they will add to discussion with residents in area.	Ongoing
A-5: Prepare a post-disaster recovery plan.				
Yes	Short Term	No	Currently in City's plan	Ongoing
A-6: Install emergency water inter-ties between neighboring jurisdictions.				
Yes	Short Term	No	Working with HBMWD and requesting Prop 50 funds for improvement plans; 90% complete	Ongoing
A-7: Develop ring levees around at-risk critical facilities.				
Yes	Long Term	No	Working with Humboldt sea level rise group at identifying all facilities and possible environmentally permissible improvements to make. City has reconstructed one key lift station and raised level into wet well.	Ongoing
A-8: Perform seismic retrofits of critical facilities.				
Yes	Long Term	No	No facilities designated needing substantial repairs	Ongoing
A-9: Work with the NOAA to attain the certifications of Storm Ready and Tsunami Ready.				
Yes	Short Term	No	Working to obtain siren	Ongoing
A-10: Perform preventive maintenance of Jane's Creek and other drainage ways.				
Yes	Short Term	Yes	City has cleaned creek; working on mitigation and access issues	Ongoing
A-11: Adopt International Building Code.				
Yes	Short Term	No	Adopted California code, which is based on International	Complete
A-12: Improve alternative communication capabilities throughout the City, including acquisition of and licensing for ham radios, satellite telephones, mobile backup dispatch devices and other communication devices.				
Yes	Short Term	Yes	City has updated APD dispatch center and has two satellite phones and a close connection with local ham operators' group, Humboldt County.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
A-13: Adopt an updated emergency response plan				
Yes	Short Term	Yes	City has a current updated ERP and we are looking to hold a tabletop exercise with all departments.	Ongoing
A-14: Establish a warning system for dam failure				
Yes	Short Term	No	Currently working on modifying emergency plan for Mathews Dam failure with PW, PD and planning.	Ongoing
A-15: Update City land use code for seismic setbacks/structural requirements and hillside development standards				
Yes	Short Term	No	Updated code requirements are sufficient.	Complete
A-16: Promote the formation of Community Emergency Response Teams (CERTs) and Neighborhood and Business Emergency Services Teams (NESTs and BESTs) throughout Arcata				
Yes	Short Term	Yes	City working on CERTS currently; this is an ongoing project	Ongoing
A-17: Update floodplain mapping throughout the City, including continued participation with the National Flood Insurance Program				
Yes	Short Term	No	Currently being updated by FEMA	Ongoing
A-18: Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for City staff.				
Yes	Short Term	Yes	APD working on schedule to keep City in compliance	Ongoing
A-19: Support and participate in the Redwood Coast Tsunami Work Group and other hazard mitigation groups in the region.				
Yes	Short Term	No	Currently on e-mail list and occasionally attend meetings	Ongoing
A-20: Obtain and distribute current information about local natural hazard risks and emergency preparedness, including creating and maintaining a hazard mitigation informational web page on the City of Arcata website.				
Yes	Short Term	Yes	City currently has information and links on City website	Complete
A-21: Raise flood-prone areas adjacent to West End Road to an elevation that will not be inundated during flood events.				
Yes	Long Term	No	This is a potential option in overall strategy for West End Road area.	Ongoing
A-22: For emergency preparedness, implement offsite parking for corporation yard equipment.				
Yes	Short Term	No	City has purchased alternative corp yard site; working on funding and development of site in CIP	Ongoing
A-23: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	Currently in program	Ongoing
CITY OF BLUE LAKE (BL)				
BL-1: Adopt a long-term capital improvements plan				
Yes	Short Term	No	City is currently drafting Capital Improvement Plan; anticipated adoption in 2013.	Ongoing
BL-2: Prepare a post-disaster recovery plan				
Yes	Short Term	No	In 2010, City adopted a Strategic Plan containing policies to periodically update the City Emergency Operations Plan (EOP). In 2011, City adopted an updated EOP containing a section on Recovery Operations.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
BL-3: Adopt International Building Code 2008				
Yes	Short Term	No	City has adopted California Building Code 2010, which is based on the International Building Code 2009.	Complete
BL-4: Install emergency water inter-ties between neighboring jurisdictions				
Yes	Short Term	Yes	HBMWD has received grant funding for intertie improvements; expected completion in 2015. Priority should change to High.	Ongoing
BL-5: Support county-wide initiatives in the Humboldt Operational Area Hazard Mitigation Plan				
Yes	Short Term	No	City Manager has continued participation on the Steering Committee.	Ongoing
BL-6: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	City has continued participation in National Flood Insurance Program.	Ongoing
CITY OF EUREKA (E)				
E-1: Replace/retrofit Eureka Fire Main Station and Emergency Operations Center (same location) to provide seismic strengthening to maintain essential emergency services.				
Yes	Short Term	No	Seismic retrofit including sheer wall construction and structural reinforcement completed November 2012	Ongoing
E-2: Reconstruct Dock B to provide seismic strengthening to reduce risk of structural failure and sustain needed economic infrastructure.				
No	Short Term	No	Business relocated from Dock B to Fisherman's Terminal following 2010 earthquake event. Dock B remains, but has not been upgraded.	No Progress
E-3: Construct Corporation Yard improvements to reduce risk of structural failure and increase efficiency and operations during natural disaster.				
Yes	Short Term	No	One seismically damaged building (2010 earthquake) replaced with modern building currently under construction.	Ongoing
E-4: Construct Eureka Municipal Airport improvements to provide for increased use, safety and security of airport during a natural disaster.				
Yes	Long Term	No	Planning discussion for replacement/addition of modern hangars.	Ongoing
E-5: Construct a fire manipulative training facility in a central location to train emergency responders.				
Yes	Short Term	No	Training facility partially completed on Hilfiker Lane. Additional development of site needed, including paved roadway and training surface. Site accredited as State Rescue Systems 1 & 2 training site. Pursuing land use change under City of Eureka General Plan update.	Ongoing
E-6: Construct Fire Station 3 and 4 improvements to increase capacity for emergency apparatus and equipment and personnel.				
Yes	Short Term	No	Station 3 & 4 received fire suppression sprinkler and alarm systems through FEMA AFG grant funding. Station 3 received interior sleeping area improvements and new heater system.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
E-7: Replace/retrofit/upgrade and clean up fuel terminal facility to improve safety, minimize environmental impacts, and provide a more reliable fuel system.				
Yes	Short Term	No	Upgrade to all fuel plumbing on dock	Complete
E-8: Construct Martin Slough Enhancement Project to reduce property and environmental damage caused by flooding.				
Yes	Short Term	No	Project in progress. Establishing/securing funding source	Ongoing
E-9: Construct Police Station Modifications to improve security and efficiency.				
Yes	Long Term	No	Electronic door access system installed. Access system also in service on dispatch doors.	Ongoing
E-10: Install, replace and repair or relocate storm drainage facilities to improve environmental protection of Humboldt Bay during severe weather events and flooding.				
Yes	Short Term	No	Storm drains provided with labeling to educate public on drainage path for drain system, meant to reduce dumping into drains.	Ongoing
E-11: Repair and replace sewer lift station facilities to improve environmental protection of Humboldt Bay during severe weather events and flooding.				
Yes	Short Term	No	Ongoing annual funding and maintenance of existing facilities	Ongoing
E-12: Construct Martin Slough Sewer Interceptor to protect and improve efficiency, safety and reliability of wastewater collection and transport system.				
Yes	Short Term	No	Ongoing major project. Phase 1 completed, Phase 2 in progress	Ongoing
E-13: Construct standby emergency power generator to ensure wastewater treatment plant is operational during critical emergencies and disasters.				
Yes	Long Term	No	Planned construction/installation of emergency power generator in summer 2013	Ongoing
E-14: Construct extended fuel storage facilities to provide adequate fuel storage at additional locations during periods of extended power outage.				
No	Long Term	No	No current progress	No Progress
E-15: Construct Mad River Water Pipeline project to strengthen system and ensure safe and reliable provision of public water to citizens and emergency service agencies.				
Yes	Short Term	No	Ongoing major project to strengthen water distribution system through new piping installation. Phases 1, 2, 3, & 4 completed. Phase 5 scheduled summer 2013. Final Phase 6 scheduled 2014.	Ongoing
E-16: Construct Water Reservoir Maintenance and Security Improvement Project for seismic strengthening and to improve security and safety for Eureka's emergency water supply				
Yes	Short Term	No	Facility security enhancements installed. Significant maintenance performed on 20 million gallon reservoir roof structure. Nearing completion	Ongoing
E-17: Implement storm water management plan to educate public about controlling/improving flooding events and water quality in the City.				
Yes	Short Term	No	Ongoing educational project. Site developed with information on City of Eureka Website.	Ongoing

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Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
E-18: Create and maintain a hazard mitigation informational web page on the City's website.				
Yes	Short Term	No	Web page information maintained on the Fire Department portion of the City of Eureka webpage with information about the City EOC and earthquakes, tsunami, winter storms and terrorism/weapons of mass destruction, with helpful links included for each.	Ongoing
E-19: Support countywide initiatives to promote public education on the impacts of natural hazards and the risks they pose by emphasizing awareness, preparation, mitigation, response and recovery alternatives.				
Yes	Short Term	No	Web page information maintained on the Fire Department portion of the City of Eureka webpage with information about the City EOC and earthquakes, tsunami, winter storms and terrorism/weapons of mass destruction, with helpful links included for each. Participation in community events, public service announcements, and press releases.	Ongoing
E-20: Partner with Humboldt County Emergency Service office in disaster response and preparedness, including updates to the Emergency Operations Plan, a post-disaster action plan, training and support.				
Yes	Short Term	No	Participation in joint training for Emergency Operations Center and Incident Management System positions, and participation in large-scale natural disaster training drills. Ongoing discussion on EOC interoperability and further training.	Ongoing
E-21: Enhance building codes and/or adopt International Building Code to improve and strengthen new construction to withstand the impacts of natural disasters and lessen the impact of that development on the environment.				
Yes	Short Term	No	Ongoing adoption of California Building Code (adaption of IBC), Fire Code, and subcodes supporting the primary codes as the Life Safety Code of the City of Eureka. Code amendments adopted to address aspects of our local community, including grade level changes for groundwater.	Ongoing
E-22: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	Ongoing participation in program	Ongoing
CITY OF FERNDALE (F)				
F-1: Designate, prepare and announce emergency assembly points throughout the City.				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 6.4 and Programs 6.a and 6.h. County Fairgrounds informally designated as assembly point and command central.	Ongoing
F-2: Adopt a long-term capital improvement plan				
Yes	Long Term	No	Included in Draft General Plan Safety Element Update Programs 6.b and 6.o. City is currently drafting Capital Improvement Plan; anticipated adoption in 2013.	Ongoing
F-3: Improve hillside stability in landslide-prone by improving drainage and planting plants that protect soil and retaining walls where needed.				
Yes	Long Term	No	Included in Draft General Plan Safety Element Update Policy 1.4 and Program 1.c. Permits have been granted to private citizens for stream channel stabilization.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
F-4: Prepare a post-disaster recovery plan				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 6.1 and Program 6.a. The City of Ferndale Disaster Council created to develop and recommend for adoption by the City Council all emergency and mutual aid plans and agreements.	Ongoing
F-5: Develop ring levees around at risk facilities				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 2.7 and Program 2.i. New wastewater treatment facility raised 5 feet above floodplain.	Ongoing
F-6: Perform seismic retrofits of critical facilities, such as the public works facility and the wastewater facility				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 1.6 and Program 1.e. New wastewater treatment facility engineered to withstand seismic activity.	Ongoing
F-7: Work with NOAA to attain the certificates of Storm Ready and Tsunami Ready				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 6.2 and associated programs	Ongoing
F-8: Perform preventive maintenance for Francis Creek				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Program 2.j. Preventive maintenance done annually. Salt River Restoration Project underway; will improve Francis Creek.	Ongoing
F-10: Establish redundant communication capabilities throughout the city.				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Program 6.c.	Ongoing
F-11: Adopt an updated emergency response plan				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 6.1 and Program 6.a. City's current EOP updated in 2006.	Ongoing
F-12: Update City Land Use Code for seismic setbacks/structural requirements and hillside development standards				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 1.1 and Programs 1.a-1.c.	Ongoing
F-13: Update floodplain mapping throughout the City, including continued participation with National Flood Insurance Program				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policies 2.1 and 2.3 and Program 2.a. Updated floodplain maps included in Draft Safety Element. City has continued participation in National Flood Insurance Program.	Ongoing
F-14: Maintain National Incident Management System and Incident Command System training for City staff				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 6.1 and Programs 6.b and 6.e. Select staff have completed training courses.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
F-15: Obtain and distribute current information about local natural hazards risk and emergency preparedness, including creating and maintaining current website information				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Programs 2.k, 3.e, 6.h, and 6.j.	Ongoing
F-16: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	Included in Draft General Plan Safety Element Update Policy 2.1. City has continued participation in National Flood Insurance Program.	Ongoing
CITY OF FORTUNA (FO)				
FO-1: Protect City's major water supply storage from landslides and earthquake damage. CIP Project #s 9124 & 9327.				
Yes	Short Term	No	CIP 9124 (replacement of Stewart Street Water Reservoir) was completed in March 2013.	Complete
FO-2: Localized detention basin at Strongs Creek headwaters. CIP Project #9603				
No	Long Term	No	No funding.	No Progress
FO-3: Localized detention basin at Rohner Creek headwaters. CIP Project #9602				
Yes	Short Term	No	This project is being alleviated by FO-8, which is being designed to handle the 100-year flood event.	Complete
FO-4: Construct flap gate valves at various locations throughout City to prevent backwater inundation from major creek channel high water conditions.				
No	Short Term	No	No funding.	No Progress
FO-5: Increase channel capacity through bank elevation improvements at localized regions of repetitive flooding incidents. CIP Project #9704				
No	Long Term	No	No funding.	No Progress
FO-6: Vegetation clearing of existing drainage courses including ditches and creek channels. CIP Project 9709.				
Yes	Short Term	No	Ongoing	Ongoing
FO-7: Stabilize hillsides from mass landslide movements at or adjacent to street right-of-ways.				
Yes	Long Term	No	Repair of landslide of Hillside Drive following a landslide will prevent future slides. Multiple other locations throughout town require work.	Ongoing
FO-8: Rohner Creek bypass. CIP Project #9601				
Yes	Short Term	Yes	Received grant from Department of Water Resources and matching with redevelopment bonds. Project to be complete in 2015.	Ongoing
FO-9: Rohner Creek widening. CIP Project #9600				
Yes	Short Term	No	Combined With FO-8.	Ongoing
FO-10: New 48" storm drain at Third Street at Stockyard. CIP Project #9702.				
No	Short Term	No	No funding.	No Progress
FO-11: Detention Basin on Mill Creek. CIP Project #9804.				
No	Long Term	No	No funding	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
FO-12: Detention basin cleaning. CIP Project #9601.				
Yes	Short Term	No	Detention basin cleaning is not part of CIP Project 9601. Some detention basins do not have a funding mechanism while others do.	Ongoing
FO-13: Dinsmore Drive flood control. CIP Project #9502.				
No	Long Term	No	No funding.	No Progress
FO-14: Elevate emergency generator at water supply/treatment facility above 100-year flood elevation.				
Yes	Short Term	No	Generator placed above 100-year flood elevation in 2011.	Complete
FO-15: Strong's Creek bypass at US 101 box culvert to Riverwalk Detention Basin.				
No	Long Term	No	No funding	No Progress
FO-16: Circle levee at water supply/treatment facility above 100-year flood elevation				
Yes	Short Term	No	In process of Phase One for this project.	Ongoing
FO-17: Seismic retrofit of at-grade water storage tanks (250,000 & 1 million gallons).				
No	Long Term	No	No funding	No Progress
FO-18: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Long Term	No	Ongoing	Ongoing
CITY OF RIO DELL (RD)				
RD-1: Chlorine generation equipment replacement and seismic retrofit				
Yes	Short Term	No	Project completed during the performance period	Complete
RD-2: Upgrade pumps at headworks				
Yes	Short Term	No	Completed December 2012	Complete
RD-3: Improvements to wastewater collection system mains, laterals, and manholes				
Yes	Long Term	No	Purchased camera system for system inspection, August 2012	Ongoing
RD-4: Wastewater lift stations maintenance and upgrades				
Yes	Short Term	Yes	Pumps at Lift Station #1 rebuilt 3 to 5 years ago. Lift Station #2 is next as funds come available	Ongoing
RD-5: Install stormproof fuel storage tanks				
Yes	Short Term	No	New generator includes self-contained tanks	Complete
RD-6: Belleview Creek crossing repair				
Yes	Short Term	No	Construction completed in 2009	Complete
RD-7: Painter Street to Highway 101 drainage ditch repair				
Yes	Long Term	No	Partial repair	Ongoing
RD-8: Center Street to Painter Street culvert improvements				
No	Long Term	No	Funding not available	No Progress
RD-9: City Hall seismic retrofit				
No	Long Term	No	Retrofit may be part of City Hall remodeling	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
RD-10: Fireman's Hall seismic retrofit				
No	Long Term	No	Funding not available	No Progress
RD-11: City standby power generation capabilities				
Yes	Short Term	Yes	Currently being evaluated; have specifications and costs	Ongoing
RD-12: Fire sprinkler installation at City Hall and Fireman's Hall				
No	Long Term	No	Being considered as part of City Hall remodel	No Progress
RD-13: Construct retaining wall on road to Dinsmore				
No	Long Term	No	Funding not available	No Progress
RD-14: Elevate wastewater plant				
Yes	Short Term	No	New treatment plant completed February 2013	Complete
RD-15: Designate, prepare and announce emergency assembly points throughout the City.				
Yes	Short Term	No	Initial points designated	Ongoing
RD-16: Adopt a long-term capital improvement plan				
Yes	Short Term	No	Plan in process; to be completed in 6 months	Ongoing
RD-17: Improve hillside stability in landslide-prone areas				
No	Long Term	No	Big job, but private property issues and limited funding hinder progress	No Progress
RD-18: Prepare a post-disaster recovery plan				
No	Short Term	No	This item is on the work program for the Police Department	No Progress
RD-19: Install emergency water interties between neighboring jurisdictions				
Yes	Long Term	No	Initial discussions begun with neighboring community with tentative plan if needed	Ongoing
RD-20: Work with the National Oceanic and Atmospheric Association to attain the certifications of Storm Ready and Tsunami Ready.				
No	Short Term	No	City awaits regional action on this project	Ongoing
RD-21: Adopt International Building Code of January 1, 2008				
Yes	Short Term	No	2010 Code adopted	Complete
RD-22: Improve alternative communication capabilities throughout the City, including acquisition of and licensing for ham radios, satellite telephones, mobile backup dispatch devices and other communication devices.				
Yes	Short Term	No	Installed OES radio and identified ham operators in community	Ongoing
RD-23: Adopt an updated emergency response plan				
Yes	Short Term	No	This item is on the Police Depart work list	Ongoing
RD-24: Update City land use code for seismic setbacks/structural requirements and hillside development standards				
Yes	Short Term	No	Under Review	Ongoing
RD-25: Promote the formation of Community Emergency Response Teams (CERTs) and Neighborhood and Business Emergency Services Teams (NESTS and BESTs) throughout Rio Dell				
Yes	Short Term	No	Will undertake as time permits	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
RD-26: Update floodplain mapping throughout the City, including continued participation with the National Flood Insurance Program.				
Yes	Short Term	No	County is the lead for this update	Ongoing
RD-27: Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for City staff.				
Yes	Short Term	No	Will undertake as time permits	Ongoing
RD-28: Support and participate in the Redwood Coast Tsunami Work Group and other hazard mitigation groups in the region.				
No	Short Term	Yes	Will participate as time permits	No Progress
RD-29: Develop focused storm drainage facility plans and implement drainage improvements.				
Yes	Short Term	No	Completed 2013 CDBG PTA grant application for drainage plan and conceptual analysis	Ongoing
RD-30: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	Update every 5 years	Ongoing
CITY OF TRINIDAD (T)				
T-1: Designate, prepare and announce emergency assembly points throughout the City.				
No	Short Term	No	Need to coordinate with local agencies to determine assembly points	No Progress
T-2: Adopt a long-term capital improvement plan				
Yes	Long Term	No	Established in September 2012 for water system improvements	Ongoing
T-3: Improve hillside stability in landslide-prone areas				
No	Long Term	No	No funding available	No Progress
T-4: Prepare a post-disaster recovery plan				
Yes	Short Term	Yes	Outlined in city EOP	Complete
T-5: Obtain emergency water supplies				
No	Long Term	No	No funding available	No Progress
T-6: Perform seismic retrofits of critical facilities				
No	Long Term	No	No funding available	No Progress
T-7: Work with the National Oceanic and Atmospheric Association to attain the certifications of Storm Ready and Tsunami Ready.				
No	Long Term	No	Need to coordinate with local agencies	No Progress
T-8: Adopt International Building Code of January 1, 2008				
Yes	Long Term	Yes	Adopted code	Complete
T-9: Improve alternative communication capabilities throughout the City, including acquisition of emergency transceivers, satellite telephones, and/or other communication devices.				
Yes	Short Term	No	Obtained ham radio, countywide city EOC-to-city EOC in 2011, and multi-agency interoperable VHF	Ongoing
T-10: Adopt an updated emergency response plan				
Yes	Short Term	No	Currently updating 2006 update	Complete

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
T-11: Update City land use code for seismic setbacks/structural requirements and hillside development standards				
No	Long Term	No	Currently updating general plan	Ongoing
T-12: Promote the formation of Community Emergency Response Teams (CERTs) and Neighborhood and Business Emergency Services Teams (NESTS and BESTs) throughout Trinidad				
No	Long Term	No	Lack of staff time	No Progress
T-13: Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for City staff.				
No	Long Term	No	Lack of staff time	No Progress
T-14: Support and participate in the Redwood Coast Tsunami Work Group and other hazard mitigation groups in the region.				
No	Long Term	No	Lack of staff time	No Progress
T-15: Obtain and distribute current information about local natural hazard risks and emergency preparedness, including creating and maintaining a hazard mitigation informational web page on the City of Trinidad website.				
No	Long Term	No	Lack of staff time	No Progress
T-16: For emergency preparedness, implement offsite parking/storage for City equipment.				
No	Long Term	No	Lack of staff time	No Progress
T-17: Consider participation in the National Flood Insurance program when/if special flood hazard areas are designated by FEMA for the City of Trinidad.				
No	Long Term	No	Lack of staff time	No Progress
HUMBOLDT COUNTY (HC)				
HC-1: FEMA training in benefit/cost analysis				
Yes	Short Term	No	One Public Works staff member took the FEMA PDM Grant Training and BCA training in Sacramento on 8/30/10 – 9/02/10. The scope of services for the plan-update contractor includes a day of general BCA training and hazard mitigation project development for all planning partners. This will take place in July 2013	Ongoing
HC-2: Join CRS program				
No	Long Term	Yes	Not feasible with current staffing levels. Can only comply with the current federal regulations and county codes regarding the flood damage prevention program. This is not a priority for the County at this time. Change priority and time line.	No Progress
HC-3: Obtain Firewise certification				
Yes	Short Term	No	Six communities in Humboldt County have successfully achieved and so far maintained Firewise recognition. They include the communities of Bridgeville, Honeydew, Orleans, Petrolia, Upper Jacoby Creek, and Willow Creek.	Ongoing
HC-4: Draft and adopt a post-disaster action plan				
No	Long Term	Yes	Have not drafted a specific post-disaster action plan. Propose to eliminate action item and use specific post-disaster recovery plans on the departmental level. Change priority and time line.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-5: Develop, map, and communicate evacuation routes for all applicable hazards				
No	Long Term	Yes	Discussions between County Planning, OES and fire services have centered on the need for, and potential ways of undertaking development of a map that communicates evacuation routes throughout the county. Mapping is not the biggest priority because the source of the hazard can vary so much, altering the best evacuation route. The priority is to educate the public about evacuation preparedness. However, evacuation mapping is a component of the tsunami and dam break plans where specific impacts and mitigation actions can be pre-identified. Need to change the focus of this action item.	No Progress
HC-6: Identify priority locations for landslide mitigation projects and move forward on implementing the most appropriate mitigation for each location. Mitigation could include building rock buttress (or other type of buttress fill) and retaining walls. Also, address the landslide hazard by mitigating subsurface and surface water in roadway prism (use culverts and ditching for surface water and under drains and interceptor trenches for subsurface water)				
No	Short Term	No	No landslide inventory on risk assessment has been conducted. This action item is dependent on funding availability.	No Progress
HC-7: Update post-disaster recovery ordinance				
No	Short Term	Yes	No such ordinance in place – change to “Develop and adopt a Post-Disaster Recovery Ordinance”	No Progress
HC-8: Implement priority recommendations from the Humboldt County Master Fire Protection Plan				
Yes	Short Term	No	Significant steps have been taken on the following recommendations: fuel modification/biomass utilization; developing a reliable revenue source for fire protection; improving the level of service standard; improving emergency dispatch services; integrating MFPP policy recommendations into the GPU; Fire Safe Education; and fire safe planning and hazard identification. The MFPP has been updated and is making its way through the approval process as the Humboldt County Community Wildfire Protection Plan.	Ongoing
HC-9: Evaluate flood zones for the establishment of base flood elevations				
Yes	Long Term	No	Progress made by private parties when filing for a Letter of Map Amendment with FEMA. The County is also working on studies on the Mad River (Blue Lake) and Redwood Creek (Orick).	Ongoing
HC-10: Adopt International Building Code pursuant to state mandate as soon as it is adopted by the state.				
Yes	Short Term	No	The County regularly adopts the California Building Code, which is based on the International Building Code. The code is updated on a three-year cycle by the state. Last adopted by the County on May 1, 2011. The 2013 edition of the California Building Code will be automatically adopted on January 1, 2014	Complete

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-11: Conduct a systematic assessment of all important/critical County buildings and infrastructure in high hazard zones, to identify their specific vulnerabilities and to identify cost-effective mitigation solutions.				
Yes	Short Term	No	Some progress ongoing. This is done on an ad hoc basis as needed or post-event. A lack of funding and adequate staffing has made it impossible to do this in a systematic manner. The Courthouse is undergoing a seismic retrofit. Construction is due to begin Spring 2013.	Ongoing
HC-12: Engineering or retrofitting new and existing roads and bridges to withstand hazards.				
Yes	Short Term	No	Progress has been made on certain roads and bridges using federal and state transportation funding.	Ongoing
HC-13: Complete a comprehensive inventory of unreinforced masonry buildings within the unincorporated area of Humboldt County and include a cost/benefit analysis of each unreinforced masonry structure to determine if the benefits of reinforcement outweigh the costs.				
No	Short Term	No	No action due to funding and staffing constraints. Two structures were voluntarily identified by property owners and brought into compliance.	No Progress
HC-14: Adopt an ordinance to require strengthening and/or reinforcement of unreinforced masonry buildings (per the requirements of the 1986 Government Code 8875 et seq.), except residential structures and warehouses. This will require a strong public education program coupled with financial incentives to achieve community support. Based on the cost/benefit analysis in HC-13, provide funding options and assistance to reduce owner expense and accomplish this initiative				
Yes	Short Term	No	There has been some voluntary compliance with the code and County Building worked to assist with the process. An ordinance still needs to be adopted and more targeted outreach is planned. Due to funding and staffing levels this has not been possible.	Ongoing
HC-15: Join the NOAA Tsunami Ready Program (includes Storm Ready)				
Yes	Short Term	No	County OES and the Redwood Coast Tsunami Work Group member entities are assisting the National Weather Service in helping the community of Manila to achieve Tsunami Ready status. Tsunami recognition has been achieved for the communities of: Orick, Redwood National and State Parks, Big Lagoon Community and Rancheria, Samoa, and King Salmon. The County also adopted The Flood Contingency Plan on December 4, 2012.	Complete
HC-16: Develop probabilistic tsunami hazard maps or other methodology suitable for flood insurance risk use and make available to the public				
Yes	Long Term	No	No probabilistic mapping currently exists for the tsunami hazard, and the County has not had funding available to generate such maps. However, there is an abundance of valuable deterministic tsunami data available that are being utilized for planning purposes.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-17: Develop and implement a tsunami signage program				
Yes	Short Term	No	The County and the state installed roadway signs in 2008 (County approx. 280; State approx. 130). Additional roadway signs have been installed by the Cities of Arcata, Eureka, and Trinidad. Several hundred sign locations have been identified. That installation process timetable is limited by available personnel and funding. Work is progressing.	Ongoing
HC-18: Support the State of California in its effort to develop criteria, with guidance from an expert panel, for addressing the tsunami hazard in local land use planning				
Yes	Short Term	No	The County has been heavily involved with state efforts to improve tsunami response support mechanisms. New mapping tools will change our response plans and make them better. New science advances as a result of the analysis of recent event impacts will result in improvements to our response plan. Our ability to effectively plan and implement field response actions for a distant source event is continually improving. As the potential impacts of tsunami events are better quantified for specific locations, those efforts will result in land use planning changes for those locations. In a recent project review for the Town of Samoa Master Plan Development, the County adopted new policies within the Humboldt Bay Area Plan to address tsunami hazards based on best available science, which includes quantitative tsunami risk assessment studies for the project area. The new policies require development of a tsunami readiness plan (including identification of safety zones and evacuation plans), restrictions on development of habitable living spaces below the predicted worst-case tsunami run-up evaluation, and area-wide restrictions on future residential development unless the potential for tsunami risk is assessed.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-19: Develop a tsunami warning and response system				
Yes	Long Term	Yes	The “tsunami warning and response system” will probably never be completed. It is a continual work-in-progress to upgrade and improve the component elements (siren, reverse calling, aircraft, Emergency Alert System (EAS), NOAA weather radio, physical contact, outreach, and response guidance plan). At any one moment, some of those elements are fully functional and some are only partially functional. They all suffer from obsolescence-related issues and from the lack of sufficient funding for upkeep and expansion. But, there are continual efforts at system improvement. The 11 siren sites were installed using three grant awards between 2010-2012 (Orick, Big Lagoon, Trinidad, Clam Beach, Manila, Samoa, Woodley Island, Fairhaven, King Salmon, Fields Landing, Shelter Cove). The County’s reverse calling system was installed in 2008. It is limited by technology in that continual phone system changes make it difficult to keep pace with new developments. Our ability to notify persons via aircraft is improving, with technology playing a big role, but funding is an impediment. The functionality of EAS is a constant challenge with many system degradation issues to be overcome. NOAA weather radio is effective when in place. The issue is getting individuals to buy them. Physical contact during actual events is totally a function of available time and manpower limitations. With enough time and people, everyone can be notified. Outreach, which is education and training, is ongoing, with progress being made all the time. But funding plays a big role in how much progress is accomplished. The Tsunami Contingency Plan is in a perpetual draft state. Although it is usable and has been used in its draft state, it is susceptible to almost constant new developments in the science of tsunami response. It continually needs updating to account for new tools being developed. That is a good thing, but it makes it difficult to train on and implement the plan. Action needs to be re-addressed through plan update.	Ongoing
HC-20: Provide training for appropriate staff within the County on the use of HAZUS-MH software				
No	Short Term	No	No action, no funding	No Progress
HC-21: Develop a public education program to demonstrate steps citizens can take to make their homes less vulnerable to natural hazard impacts and inform them about hazard mitigation and preparedness via county website and other media sources.				
Yes	Short Term	No	Public education is continually provided through multiple methods. The County OES and Fire Safe Council webpages provide useful hazard mitigation information and links. Information is also provided in multiple meetings, workshops, news releases, and trainings. Every 2 months planning partners meet to discuss emergency service issues to ensure a high level of coordination.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-22: Design, post to the web and publicize the availability of a web GIS mapping tool providing detailed maps of natural hazard overlays with site address and/or parcel locations				
Yes	Short Term	No	The Humboldt GIS Portal is a mapping tool available through the Humboldt County Planning and Building website. The Portal has a hazard mitigation application. Its use is promoted by County Planning and Building and various public planning documents and on the Humboldt County Homepage.	Complete
HC-23: Secure property interests (fee title or easements) for sediment detention facilities and/or develop these facilities in areas where excessive sediment is a primary cause of flooding				
No	Short Term	No	No action due to funding and staffing constraints.	No Progress
HC-24: Seek funding and authorization to include seismic upgrades to planned major repairs of county buildings to increase resistance to earthquake damage, especially buildings critical to emergency response and recovery (including designs and feasibility studies associated with the construction project) These include, but shall not be limited to, the buildings proposed for remodeling in the Capital Project Plan.				
No	Long Term	No	Some progress ongoing. The County has secured/allocated funding for seismic upgrades of buildings in critical need. Currently there are six projects underway, supported by County capitalization funds, Cal EMA grants, and other grants: <ul style="list-style-type: none"> • The County Courthouse • The County Correctional Facility • The County Mental Health Hospital • The County Juvenile Hall • County Regional Facility (juvenile detention) • Eureka Veterans Building The County is continually in the process of reviewing other possible upgrades and seeking funding to support such work.	No Progress
HC-25: Design and distribute building guides to help citizens comply with hazard mitigation code requirements.				
No	Short Term	No	This is still something the County wants to do but no progress has been made due to a lack of funding and staff time.	No Progress
HC-26: Upgrade landslide hazard mapping by producing a complete uniform dataset following the California Geological Survey’s North Coast Watersheds Mapping project methodology, or similar acceptable mapping approach and make easily accessible to public.				
No	Long Term	No	No funding no staff	No Progress
HC-27: Establish an agreement with haulers to assist with the development of emergency plans for transporting and disposing of post-disaster event debris, ahead of a disaster.				
No	Short Term	No	No progress on this action during the performance period.	No Progress
HC-28: Identify and develop adequate locations for the temporary storage of post-disaster event debris.				
No	Short Term	No	A list of locations has not been developed. Environmental Health will promote development of a list through established solid waste work group meetings with Public Works, Humboldt Waste Management Authority and the CAO.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-29: Secure funding for additional GIS staffing capacity to provide interagency coordination and consolidated, integrated GIS capabilities including all county departments and other applicable agencies				
Yes	Short Term	No	Planning and Building GIS staff has provided GIS training to Public Works staff, Building Inspectors and Planners and provides services to multiple County departments. County staff helps to facilitate the Countywide GIS User Group. Extra funding has not yet been secured and this is still a priority.	Ongoing
HC-30: Hardening and reinforcement of repeater sites (retrofit)				
Yes	Short Term	No	Ongoing under County IT. Making progress – identified sites and integrated into a regular upgrade schedule. Equipment has been replaced. Need more of an emphasis on hardening the sites.	Ongoing
HC-31: Public education for identified “isolated islands of humanity.” This could include the development of CERT.				
Yes	Short Term	No	This effort needs funding. Even with limited funding there has been some progress. The leader in this effort is the Humboldt State University Regional Training Institute – Community Disaster Preparedness. County OES is supporting this effort with Homeland Security funding (supply storage trailer, training items)	Ongoing
HC-32: Retrofit airport runways to be able to receive larger aircraft: Rohnerville, Arcata/McKinleyville, Murray				
No	Long Term	No	No action, due to funding constraints.	No Progress
HC-33: Update County Operations Plan for better integration and training coordination				
Yes	Short Term	No	In progress, 95% complete; will be done late 2013.	Ongoing
HC-34: Develop County Continuity of Operations Plan				
Yes	Short Term	No	Two years of progress underway. This effort will be complete at the end of 2013.	Ongoing
HC-35: Relocate and/or develop a mobilization plan for PW maintenance yards.				
No	Short Term	No	No action due to funding and staffing constraints.	No Progress
HC-36: Relocation/digitize stored County Records				
Yes	Short Term	No	This Countywide effort is underway. Many departments have made significant progress. These departments include the Auditor’s office, Planning and Building, and Information Technology (IT).	Ongoing
HC-37: Establish alternate Emergency Operations Center for the Office of Emergency Services (OES)				
No	Long Term	No	No Progress. No funding	No Progress
HC-38: Retrofit/upgrade Redwood Acres and Humboldt County Fairgrounds for use as critical infrastructure for response and recovery activities				
No	Long Term	No	No action due to funding and staffing constraints.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-39: Upgrade/develop redundant interoperable communication systems (fiber optic, wireless,, radio, other)				
Yes	Long Term	No	There is a now redundant fiber optic line serving Humboldt County. We are in the process of making sure all systems are supported by the redundant line. The County also installed a new 6.7-gigahertz microwave link from the Courthouse to Mt. Pierce. This system supports radio communication and includes all new equipment, and lots of redundancy is built into it.	Ongoing
HC-40: Include backup emergency energy sources in Capital Improvement Plan				
Yes	Short Term	No	There is a plan underway to test the backup energy system for the County facility that houses the EOC, OES, Sheriff, Courthouse, and other essential county departments. This test will provide information for needed improvements and help develop cost estimates	Ongoing
HC-41: Current EH program provides regulatory oversight of high hazard facilities, which includes process hazard analysis, what-if checklists, hazard and operability studies, failure mode and effects analysis				
Yes	Short Term	No	See HC-42. Both HC-41 and HC-42 need to be reworded in the updated action plan to make sure they are hazard mitigation projects.	Ongoing
HC-42: Current EH program provides regulatory oversight of high hazard facilities, which includes a hazard assessment in accordance with Cal ARP requirements.				
Yes	Short Term	No	Since 2008, the Division of Environmental Health’s Certified Unified Program Agency (CUPA) has inspected (on a 2- to 3-year cycle) facilities that hold large quantities of acutely hazardous chemicals and has completed over 50 inspections under the California Accidental Release Program (Cal ARP). Out of the 22 Cal ARP facilities, most of them have been found to be in good operational standing. Eureka Ice and Cold Storage (Eureka waterfront) was the only facility that had inspections reporting major violations, and several operational concerns were noted. In 2009, this facility was shut down and dismantled. The infrastructural void to the local marine fleet generated by the closure of this bulk ice provider has been filled by an upgrade and expansion of Pacific Choice, another Cal ARP facility. Five facilities have been closed out of the program as they have eliminated their need for acutely hazardous chemicals in their business model and either adopted non-acutely hazardous chemicals or stopped the industrial process that required them. None of these five closures were related to major violations or operational risks.	Ongoing
HC-43: Support fisheries enhancement, maintenance, restoration programs, and native stock replenishment programs				
No	Short Term	Yes	No action, no funding. Need to revisit priority and timeline during update process.	No Progress
HC-44: Support conservation easement programs intended to preserve or restore healthy fish species habitat				
Yes	Short Term	No	Supported the establishment of four conservation easements and 16 agricultural preserves using Title III grant funds.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HC-45: Support wetland/riparian protection, restoration, enhancement and maintenance programs				
Yes	Short Term	No	Already have Streamside Management Areas ordinance as a current protective measure and there are proposed Implementation Measures in the draft General Plan Update (GPU) Biological Resources section of the Conservation and Open Space Element. The GPU has yet to be adopted by the County Board.	Ongoing
HC-46: Support studies to evaluate fish populations as well as disease impact studies				
Yes	Long Term	No	Efforts have been led by state, tribal, and non-governmental entities, especially related to the Klamath and Eel Rivers.	Ongoing
HC-47: Perform “risk-based” analysis of non-accredited levees within the planning area (Redwood Creek) to identify the most cost-beneficial remediation of those facilities. Implement recommendation of the analysis.				
Yes	Long Term	No	Geotechnical evaluation of Redwood Creek levee completed in 2011 did not identify structural deficiencies; evaluations of hydraulic capacity and effects of sediment deposition are ongoing.	Ongoing
HC-48: Support studies to evaluate the effect of the major dams’ operating procedures on resident fish.				
No	Long Term	Yes	It is not a feasible project for Humboldt County due to funding and staffing constraints. This action item will likely be eliminated during the update process.	No Progress
HC-49: Develop a Habitat Conservation Plan.				
Yes	Long Term	Yes	A habitat conservation plan has not been specifically proposed in the GPU. However, policies and implementation measures aiming to protect critical watersheds have been proposed. Beyond the proposed action in the GPU, no work has been done to develop the plan. The GPU has yet to be adopted by the County Board. Change this to “Support the development of habitat conservation plans?”	Ongoing
HC-50: Dam and levee reinforcement and new construction.				
No	Long Term	No	No action has been made, due to funding and staffing constraints.	No Progress
HC-51: Amend or enhance the Hazard Mitigation Plan on an “as needed” basis to comply with state or federal mandates (i.e. CA. Assembly Bill # 2140) as guidance for compliance with these programs become available.				
Yes	Long Term	No	The County has hired a consultant. The Planning Team has reconvened the Steering Committee and planning partners and is in the process of updating the original plan.	Ongoing
HC-52: Continue participation and maintain good standing in the National Flood Insurance Program.				
Yes	Short Term	No	Have maintained good standing in the National Flood Insurance Program.	Ongoing
ORLEANS COMMUNITY SERVICES DISTRICT (OCS D)				
OCS D-1: Retrofit existing water storage tank for the impacts of earthquake and landslides, while increasing the storage capacity for fire protection capability.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
OCSD-2: Retrofit existing water distribution system for the impacts of earthquake, flood and landslide. Retrofit to include where feasible, extension of existing system to non-serviced areas to provide fire hydrant protection.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
OCSD-3: Structural/nonstructural seismic retrofit of OFPD fire house.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
OCSD-4: Support county-wide initiatives identified in the Humboldt County Hazard Mitigation Plan				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
ORICK COMMUNITY SERVICES DISTRICT (O)				
O-1: Provide public outreach for tsunami awareness				
Yes	Long Term	No	Orick Volunteer Fire Department is continuing to work with the school and community members to increase awareness of Tsunami escape routes. There was a successful siren test performed in March 2013.	Ongoing
O-2: Seismic retrofit of water supply system				
Yes	Long Term	No	We have not been able to seek funding for retrofitting the water supply system.	No Progress
O-3: Upgrade levees to 250-year flood protection level				
Yes	Long Term	No	Orick is working with Humboldt County to bring the levees to the 250-year flood protection level.	Ongoing
HUMBOLDT COMMUNITY SERVICES DISTRICT (HCSD)				
HCSD-1: Retrofit Tanks, Ridgewood, Walnut, and Freshwater among others.				
Yes	Short Term	Yes	All HCSD tanks have been equipped with restraints.	Complete
HCSD-2: Enhance water supply system for fire prevention, in areas rated high by Cal Fire				
Yes	Long Term	No	We are currently in contact with Cal Fire to obtain mapping.	Ongoing
HCSD-3: Acquire support equipment such as: backup generators and water pumps				
Yes	Short Term	No	We are looking at purchasing two more generators in the upcoming CIP	Ongoing
HCSD-4: Engineering feasibility study of critical facilities for structural and non-structural mitigation.				
No	Long Term	No	Will determine necessity through further evaluation.	No Progress
HCSD-5: Promote public awareness of the risk associated with natural hazards to HCSD rate payers via public information means available to HCSD (is there a problem with this one?)				
No	Long Term	Yes	Will determine necessity through further evaluation	No Progress
WILLOW CREEK COMMUNITY SERVICES DISTRICT (WCCSD)				
WCCSD-1: Retrofit existing water storage tank for the impacts of earthquake and landslides, while increasing the storage capacity for fire protection capability.				
Yes	Long Term	No	We have replaced three water tanks and upgraded seismic protection, fenced and protected sites. At Panther site we doubled water storage for fire protection.	Complete

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
WCCSD-2: Retrofit existing water distribution system for the impacts of earthquake, flood and landslide. Retrofit to include where feasible, extension of existing system to non-serviced areas to provide fire hydrant protection.				
Yes	Long Term	No	New stand pipes at Roberts Ranch, Hodgson Hill – Gulch Rd. New hydrants to stagecoach subdivision and Patterson Rd. at Dogwood.	Ongoing
WCCSD-3: Support county-wide initiatives identified in the Humboldt County Hazard Mitigation Plan				
Yes	Long Term	No	We continue to work on areas involving Fire Safe: are now a Fire Safe Community; brush removal; have mapped hydrants GPS + water sources. We have a Red Cross evacuation trailer with resources for an emergency shelter. Participated in county wide drills.	Ongoing
WILLOW CREEK FIRE PROTECTION DISTRICT (WCFPD)				
WCFPD-1: Seismic retrofit fire hall				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
WCFPD-2: Multi-Agency Emergency Management Facility				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
WCFPD-3: Support county-wide initiatives identified in the Humboldt County Hazard Mitigation Plan				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
WEOTT COMMUNITY SERVICES DISTRICT (WCSD)				
WCSD-1: Install Water Meters				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
WCSD-2: Retrofit/Upgrade Transmission Lines for possible impacts from earthquake and landslides				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
WCSD-3: Develop redundancy to water supply by establishing a Back-Up Well Facility				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
WCSD-4: Retrofit the community hall for the probable impacts of earthquake, flooding and severe weather				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
WCSD-5: Establish “defensible” spaces around identified critical facilities and infrastructure by clearing accumulated brush around facilities				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
WCSD-6: Support county-wide initiatives identified in the Humboldt County Hazard Mitigation Plan				
No	Short Term	No	No progress was reported by this planning partner.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
MCKINLEYVILLE COMMUNITY SERVICES DISTRICT (MCSD)				
MCSD-1: Earthquake :Mitigate for loss of water transmission line under the Mad River				
Yes	Long Term	Yes	A single transmission line underneath Mad River is the only source of water to MCSD residents. We have completed the first phase of the project and are awaiting the beginning of Phase Two. Phase One was to install a 12” emergency water main underneath the new spans of northbound Highway 101 bridge. Phase Two will be to add valves to either side for the flexible hose to connect.	Ongoing
MCSD-2: Flooding: River bank stabilization of Mad River west of the Ocean Avenue area				
Yes	Short Term	No	This addressed flooding and river bank stabilization on Mad River east bank. MCSD, along with several other planning partners, worked to stabilize the Mad River’s eastern bank. The project used several different types of protection, including planting willow trees, riprap, etc. This has helped to stabilize the eastern bank more than adequately.	Complete
MCSD-3: Water Well for backup system supply				
Yes	Long Term	Yes	This was related to the search for an alternate source of water for the MCSD residents. This is an ongoing project involving searching for a property to locate the well. We are currently looking at several properties, including a piece of property, that runs parallel with the Mad River’s eastern bank. This property is located near our North Bank Pump Station on North Bank Road.	Ongoing
REDWAY COMMUNITY SERVICES DISTRICT (RW)				
RW-1: Reinforce Riverbank at Water treatment plant to mitigate the impacts of stream bank erosion				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
RW-2: Enhance stormwater management capability within the district, with an emphasis on upgrades to existing stormwater conveyance system				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
RW-3: Community outreach/Education Disaster Preparedness				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RW-4: Add Alternate/Redundant aerial crossing for effluent from Wastewater Plant				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
HUMBOLDT #1, FIRE PROTECTION DISTRICT (HFD)				
HFD-1: Seismic Retrofit Station 12				
Yes	Short Term	Yes	Station 12 evaluated and found to meet current standards for seismic stability.	Complete
HFD-2: Private Bridge Safety Program				
Yes	Short Term	No	Private bridges within response jurisdiction identified. Bridge engineering certification required every 10 years. List of bridges with load restrictions maintained. Lighter Type 3 fire engine purchased that can cross many of the lower restriction bridges.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HFD-3: Training Facilities, multi-agency				
Yes	Short Term	No	Working in conjunction with City of Eureka/Eureka Fire department on development of Hilfiker Regional Training site. Sharing some costs of development.	Ongoing
HFD-4: Support the District's CPR education program				
Yes	Short Term	No	Continued support of providing community CPR education. Program combined with Eureka Fire CPR program to provide consolidated education and larger instructor pool.	Ongoing
HFD-5: Employee Disaster Response Plan				
Yes	Short Term	No	Developed department policies on disaster response, damage surveys, target hazard surveys, station operations during disasters, and locating personnel family members. Policies reviewed periodically and updated as needed	Ongoing
HFD-6: Seismic Retrofit Station 11				
Yes	Short Term	Yes	Completed remodel of station in 2012, including adding second floor to living quarters. Station constructed to current seismic code requirements. Fire sprinkler and alarm system installed.	Complete
ARCATA FIRE PROTECTION DISTRICT (AFPD)				
AFPD-1: Continue/enhance ongoing public education programs to include components on hazard awareness and mitigation.				
Yes	Long Term	No	We have been able to incorporate public education and safety messages through our website and on our Facebook page. These have been well received by community members with much positive feedback. Additionally, we are utilizing the Hazard House in our community safety programs to highlight the need for awareness of safety issues throughout the home.	Ongoing
AFPD-2: Update District sponsored website to include preparedness, warning and mitigation information on the earthquake, tsunami and wildfire initiatives.				
Yes	Long Term	Yes	We modernized and revamped our webpage to focus on getting our message to the public. We have also assigned two firefighters to update both the webpage and our Facebook page.	Complete
AFPD-3: Retrofit all fire stations with non-combustible roofing material.				
Yes	Short Term	No	Grant funding allowed us to replace the aging and damaged roofs at our Mad River and McKinleyville Fire stations. The roofs are torch down material covered with gravel.	Complete
AFPD-4: Provide/update new radios for all "first responders."				
Yes	Short Term	Yes	Grant funding was utilized to replace our entire radio system and includes a portable radio for each riding position in our apparatus.	Complete
AFPD-5: Outfit/equip 2 apparatus to meet USAR capabilities.				
Yes	Short Term	Yes	We are participating in the local USAR team and have equipped three front-line engines with the appropriate tools and supplies for that assignment.	Complete

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
AFPD-6: Acquire transmitter for thermal imager.				
No	Short Term	Yes	At this time, we have not had the funding to purchase the monitors needed for the command vehicle thermal imager receiver.	No Progress
AFPD-7: Support/adopt county-wide fire apparatus program				
Yes	Short Term	Yes	All of our apparatus has been renumbered to the County adopted numbering standard.	Complete
AFPD-8: Support/implement countywide initiatives of the Humboldt County Hazard Mitigation Plan.				
Yes	Long Term	Yes	Arcata Fire District remains an active partner in the Humboldt County Hazard Mitigation planning process and will continue to support the efforts of the County and our neighboring agencies.	Ongoing
RIO DELL FIRE PROTECTION DISTRICT (RDFD)				
RDFD-1: Develop a post-disaster action plan				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RDFD-2: Initiate Public outreach and education efforts, including an active Firewise program.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RDFD-3: Clear fuels on land that can trigger or maintain wildfires.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RDFD-4: Establish and maintain mutual aid agreements between fire service agencies.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RDFD-5: Identify and create emergency vehicle access in high hazard areas.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
RDFD-6: Install fire suppression sprinkler system throughout fire station at 50 West Center St.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
SAMOA PENINSULA FIRE PROTECTION DISTRICT (SP)				
SP-1: Seismic and tsunami retrofit Fairhaven Station				
No	Long Term	Yes	This activity is being re-evaluated to determine if a solution can be developed that merges the goals of SP-1 and SP-3 to provide vertical evacuation for the community while also providing for fire and medical response after a major earthquake and/or tsunami.	No Progress
SP-2: Achieve Tsunami Ready STATUS for Fairhaven				
Yes	Long Term	No	Education component of Tsunami Ready has been executed. Some planning component has also occurred in the form of signage.	Ongoing
SP-3: Build vertical evacuation site for Fairhaven				
Yes	Long Term	No	Exhausted evacuation berm concept and are now moving toward a solution that integrates SP-1 and SP-3. Initial concept has been endorsed by community, Fire Department, and area businesses. Funding sources are being sought.	Ongoing

**TABLE 2.
ACTION PLAN MATRIX**

Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
SP-4: Achieve Tsunami Ready Status for Samoa				
Yes	Long Term	No	Tsunami Ready status was achieved for the town of Samoa in 2008 as a result meeting all the requirements for conducting community education, hazard mitigation planning, and tsunami warning systems. The education component included community outreach events, educational materials and interpretive signage, and a community evacuation drill. The planning included the development of evacuation routes that included route signs to guide evacuees to the evacuation site. The tsunami warning program included the installation of an outdoor tsunami siren and the installation of NOAA Weather Radios in the school and other public facilities. The use of other countywide warning systems was coordinated for specific use in Samoa. Special education sessions and exercises were conducted for the school in Samoa. Continuing education includes an intensive outreach effort associated with the annual tsunami awareness week that also includes a test of all five components associated with the tsunami warning system. These include the outdoor siren, an overflight with public address by the Civil Air Patrol, reverse calling, NOAA Weather Radio activation, interruption of commercial radio and TV using the Emergency Alert System.	Complete
(SHELTER COVE) RESORT IMPROVEMENT DISTRICT NO. 1 (RID)				
RID-1: Development and initial implementation of vegetative management program on greenbelt and other RID property.				
Yes	Short Term	No	We have access to and are a sponsor of the Cal Fire conservation camp workers from Eel River Camp. Our District reimburses them for their efforts to come out each week, sometimes 5 days a week, to clear and maintain vegetation. They implement weed abatement, fuel reduction, particularly around power lines, and sometimes create fuel breaks.	Complete
RID-2: Annual power line tree trimming				
Yes	Short Term	No	We have hired Davey Tree to come out with a 70-foot high bucket truck and conduct tree trimming around power lines. We have devoted \$43,267 to this effort this year already.	Ongoing
RID-3: Building extra water storage capacity to counteract drought and fight fires				
Yes	Long Term	No	We have completed the design for a sustainably focused water storage project titled Telegraph Creek Upper Intake Project, which includes storage tanks. This design was completed within the last year. Construction is dependent on grant funding.	Ongoing
RID-4: Seismic retrofit or replacement of 11 water tanks.				
Yes	Short Term	No	We had a consultant (Pittsburg Tank Company) come in and do an evaluation of our water tanks. The next step is to find funding to go to construction.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
RID-5: Automation of the existing tsunami siren				
Yes	Short Term	No	This was accomplished in 2011/12 by the Office of Emergency Services through a grant. They hired a radio technician who installed a radio trigger for the siren.	Complete
GARBERVILLE SANITARY DISTRICT (GSD)				
GSD-1: Map out the water and wastewater system				
Yes	Long Term	No	The District purchased GIS software and is working on inputting the systems	Ongoing
GSD-2: Consider store water/captured water techniques				
No	Long Term	Yes	Management changed; not sure what is was about	No Progress
GSD-3: Educate the public in awareness, preparation, mitigation response, and recovery alternatives				
No	Long Term	No	Management changed; not sure what is was about	No Progress
GSD-4: Purchase generator for backup power				
Yes	Long Term	No	The generator is part of the District drinking water project	Ongoing
GSD-5: Prepare an update to the Hazard Mitigation Plan for the District				
No	Long Term	No	Management changed; not sure what is was about	No Progress
HUMBOLDT BAY MUNICIPAL WATER DISTRICT (HBMWD)				
HBMWD-1: Retrofit emergency water supply interties for the communities of McKinleyville, Blue Lake, Fieldbrook-Glendale and possibly Arcata and Eureka				
Yes	Long Term	No	Project is underway. Expected completion in 2015 or 2016.	Ongoing
HBMWD-2: Acquire emergency response equipment: Yellowmine pipe, K-Rails, traffic plates, portable fencing, gravel/sand				
Yes	Long Term	No	In progress. Yellowmine pipe and traffic plates acquired.	Ongoing
HBMWD-3: Acquire Support Equipment for Emergency Operations Centers at Essex, Korblex and Eureka				
Yes	Short Term	No	Emergency Personal Safety Backpacks, cots, MREs acquired.	Ongoing
HBMWD-4: Conduct public awareness education regarding hazards affecting water supply				
Yes	Short Term	No	Done with municipal customers.	Complete
HBMWD-5: Conduct design and feasibility studies for construction of critical infrastructure/facilities				
Yes	Long Term	No	CIP completed. Implementation in process.	Ongoing
HBMWD-6: Retrofit Techite domestic waterline on Samoa Peninsula				
Yes	Long Term	No	Project is underway. Expected completion in 2014.	Ongoing
HUMBOLDT BAY HARBOR, RECREATION, AND CONSERVATION DISTRICT (HB)				
HB-1: Assess and enhance the Harbor District's storm and tsunami warning capability by joining NOAA Storm Ready and Tsunami Ready programs				
Yes	Long Term	No	Tsunami sirens have been installed at Woodley Island Marina as well as other locations around Humboldt County. Harbor District has worked with NOAA and the Harbor Safety Committee to heighten public awareness in the listing of best practices during these emergencies.	Ongoing

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
HB-2: Rebuild/retrofit warehousing at Redwood Marine Terminal				
Yes	Long Term	No	Building 14 at the Redwood Marine Terminal Berth 1 has been removed.	Ongoing
HB-3: Rebuild breakwater at Woodley Island Marina				
Yes	Short Term	Yes	Action completed, breakwater has been rebuilt.	Complete
HB-4: Rebuild work dock at Woodley Island Marina				
Yes	Short Term	Yes	Action completed, pilings have been sleeved and reinforced, decking has been replaced.	Complete
HB-5: Rebuild breakwater at Shelter Cove				
Yes	Short Term	Yes	Action completed, breakwater project completed.	Complete
HB-6: Install floating breakwater on east end of Woodley Island Marina				
Yes	Long Term	No	Initiative is still a valid concern but no progress has been made due to a lack of funds.	Ongoing
HB-7: Develop standard specifications for levee repair/rehabilitation to minimize breaching and overtopping				
Yes	Long Term	No	Working with Dredge Committee and USACE on possible options including flow laning materials from sites within the bay	Ongoing
HB-8: Develop Dredge Material Management Program in order to ensure adequate water depths necessary for safe navigation and emergency access				
Yes	Long Term	No	Initiative is still a valid concern but no progress has been made due to a lack of funds.	Ongoing
HB-9: Rebuild Redwood Marine Terminal and Fields Landing Terminal Berths				
Yes	Long Term	No	Initiative is still a valid concern but no progress has been made due to a lack of funds.	Ongoing
RECLAMATION DISTRICT #768 (RD)				
RD-1: Ongoing levee maintenance and flood gate upkeep				
Yes	Long Term	No	Levees and flood gates are continuously monitored and undergo maintenance when necessary. The levee system is in good shape. No major work is needed.	Ongoing
RD-2: Levee raising / Tsunami Ready certification				
No	Short Term	No	This project needs to be taken off of the action plan. There is no prospect for funding or staff/volunteer time to support this effort.	No Progress
RD-3: Levee improvements for Storm Ready certification				
No	Short Term	Yes	This project needs to be taken off of the action plan. There is no prospect for funding or staff/volunteer time to support this effort.	No Progress

TABLE 2. ACTION PLAN MATRIX				
Action Taken?	Time Line	Priority Changed?	Comment (Describe progress or changed priority)	Status
ST. JOSEPH HEALTH SYSTEM, HUMBOLDT COUNTY (REDWOOD MEMORIAL HOSPITAL, ST. JOSEPH HOSPITAL) (SJ)				
SJ-1: Structural seismic retrofit of hospital facility according to Hospital Campus Master Plan. Construction of new facility to meet seismic standards.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
SJ-2: Non-structural seismic retrofit of hospital facilities according to Hospital Campus Master Plan.				
No	Long Term	No	No progress was reported by this planning partner.	No Progress
SJ-3: Support County Wide Initiatives that promote the education of the public on the impacts of natural hazards within Humboldt County, and the preparedness for and the mitigation of those impacts. This support will be in the form dissemination of appropriate information to the residents of Humboldt and continuing support/participation as a Humboldt County hazard mitigation planning partner.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
SJ-4: Utilize information provided in the Humboldt County risk assessment to consider emergency management provisions that will reduce the vulnerability to, and enhance the preparedness for the impacts of natural hazards that SJHS-HC has exposure.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
SJ-5: Continue to coordinate and work with Humboldt County Emergency Management in disaster response and preparedness. This level of coordination should include updates to the Emergency response plan, development of a post-disaster action plan, training and support.				
No	Short Term	No	No progress was reported by this planning partner.	No Progress
MANILA COMMUNITY SERVICES DISTRICT (M)				
M-1: Achieve Storm / Tsunami Ready status for Manila				
Yes	Short Term	No	Should be achieved prior to June 2013	Ongoing
M-2: Educate/train community regarding evacuation/preparedness				
Yes	Short Term	No	Coincides with M-1	Ongoing
M-3: Designate evacuation routes				
Yes	Short Term	No	Coincides with M-1	Complete
M-4: Train staff, management, board of directors and community leaders in National Incident Management System and Incident Command System				
No	Long Term	No	Staff has received training. Board members have not.	No Progress
M-5: Seismic and tsunami retrofit the Community Center				
No	Long Term	No	No funding	No Progress
M-6: Work with PGE to protect community from transmission lines; either automatically throw power to them or bury them				
Yes	Short Term	No	Pacific Gas and Electric confirms stanchions will withstand 9.0	Complete

Public review notice: *The contents of this report are considered to be public knowledge and have been prepared for total public disclosure. Copies of the report have been provided to the governing bodies of all planning partners and local media outlets and posted on the Humboldt County Hazard Mitigation Plan website. Any questions or comments regarding the contents of this report should be directed to:*

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