

CITY
OF

YUBA CITY

DEPARTMENT OF PUBLIC WORKS



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The City of Yuba City is an active member of the FEMA Community Rating System. The Community Rating System is a program which identifies communities which are taking an active approach towards flood awareness and flood insurance. The benefits of the City's participation include a direct discount on flood insurance for all citizens within the community. This discount will take affect immediately when FEMA completes the mapping review of Yuba City, which will identify areas of the community as Special Flood Hazard Areas. The percentage discount each resident will receive is a direct reflection to the level of participation by the City. The discounts can range from 0% to 45% depending on the City's classification. Communities are classified between Class 10, a non-participating community which receives 0% discount, and Class 1, a community which receives a 45% discount. Currently the City of Yuba City is a Class 7 community, meaning citizens who purchase flood insurance through the National Flood Insurance Program will receive a 15% discount when FEMA releases the anticipated Flood Insurance Rate Map update. The City will be working towards improving the CRS classification to provide citizens with a higher percentage discount on flood insurance.

As a requirement of the Community Rating System, the City is responsible for providing an annual update of the Multi-Hazard Mitigation Plan, which was originally published in 2007. Following is a review of the background and progress on the City of Yuba City's Action Items described in the Multi-Hazard Mitigation Plan.

EMERGENCY SERVICES MITIGATION ACTION

ACTION #1: EMERGENCY COMMUNICATION IMPROVEMENTS

- Issue/Background: Currently, there are some areas countywide that do not have radio signals. During an emergency, additional resources are needed to communicate within these areas. This usually involves additional people to act as relays across these areas. Additional communication structures need to be established.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Police and Fire Department
- Priority (High, Medium, Low): High
- Cost Estimate: \$1-2 million
- Benefits (avoided Losses): Life safety, Property loss
- Potential funding: Federal and state funding/grants, Local Funds – CIP budgets,
- Schedule: 2008 to 2011
- **2009 Progress Report:** The Yuba City Fire Department previously committed to provide interoperable portable radios to key emergency personnel within the City's Public Works Department, Utilities Department, and General Services Department's Fleet Maintenance Division for use during major emergencies. The Fire Department, in conjunction with the above mentioned departments, identified key individuals or positions needing use of the interoperable portable radios. The Yuba City Fire Department used a portion of its 2008 Homeland Security Grant allocation for the purchase of fifteen (15) Motorola XTS 1500 radios, along with programming, batteries and chargers for the designated individuals. The subject radios are currently being programmed by Sutter Buttes Communications and will soon be distributed to the individuals and training provided.

The City's General Services Department previously purchased 26 mobile radios for use in vehicles assigned to the Public Works, General Services and Utilities Departments. This was the first phase of the

replacement and upgrade of the City's old and obsolete mobile radio inventory. At the close of the 2008-2009 fiscal year, General Services purchased an additional 26 mobile radios. The combined 51 mobile radios represents approximately 50% of the City's mobile communications conversion needs. There had been a delay in getting these radios into service caused by the lack of a radio frequency needed for a Public Works radio repeater. This problem was recently resolved with the designation by the FCC of a radio frequency for the repeater. The mobile radios will be programmed and placed into service in City vehicles beginning in approximately 2 months (approximately October 2009). These purchases will provide non-public safety vehicles, which are a key part of the City's emergency system response, with working, interoperable and compatible equipment that will allow them to communicate effectively during periods of emergencies and normal operations.

General Services and the Fire Department also worked together to fund improvements to the City's radio base station system to enhance its emergency readiness and capabilities. Three new base station radios have been purchased with two being placed City Hall, and one at the Corporation Yard. These base station radios will provide emergency communication links between the City Emergency Operation Center (EOC), located at the Yuba City Police Department, and the City Hall EOC Annex and the Corporation Yard EOC Annex.

The Yuba City Police Department completed interoperable radio system improvements that included transmitter and antenna enhancements at the top of the Sutter Buttes, which provides for greater radio coverage within the City's emergency response area. The interoperability project benefits all emergency providers in Sutter, Yuba, Colusa and Butte Counties (as well as state and federal authorities). It is equipped with all the national Department of Homeland Security (DHS) frequencies.

FLOOD MITIGATION ACTIONS

ACTION #2: VARIOUS STREETS: PROJECT IMPROVEMENTS TO DECREASE LOCALIZED FLOODING

- Issue/Background: Localized flooding throughout the city occurs during storm events due to lack of infrastructure and drainage problems. As the City has grown and annexed rural areas, drainage problems have arisen that have led to localized flooding of streets and low lying property. The existing infrastructure in critical areas either does not exist or is not sized to provide adequate drainage when surrounding areas were developed.
- Other Alternatives: Continue to allow localized flooding during storm events
- Responsible Office: City of Yuba City Department of Public Works
- Priority (High, Medium, Low): Medium
- Cost Estimate: \$10 million
- Benefits (avoided Losses): Reduce damage to homeowners and property loss. Reduce the possibility of safety hazards associated with flooded streets, public property, and systems. Prevent oils and foreign material from entering waterways and groundwater. Labor and associated costs of cleaning up after flooding would be reduced or eliminated
- Potential funding: Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation Program (PDM), Flood Mitigation Assistance (FMA); State Funds & Grants; Local Funds; Private Funds
- Schedule: 1-5 years depending on funding; localized flooding projects are budgeted for annually.
- **2009 Progress Report:** The City of Yuba City Department of Public Works has scheduled a drainage improvement project near the intersection of Cooper and Frederick. Current conditions cause localized flooding during rain events. The project, planned to begin in late 2009, will alleviate the localized flooding.

ACTION #3: LOW LIFT PUMP ACCESS ROAD IMPROVEMENTS

- Issue/Background: Due to high water events within the levees of the Feather River the access road to the City of Yuba City's low lift intake structure becomes impassable by vehicle. Water rises and washes out the roadway at existing culverts multiple times a year creating access and maintenance problems. The low lift pump must be checked two times a day for proper operation. A majority of the City of Yuba City's water supply is taken in at this site. Multiple times a year maintenance crews must repair the travel way to provide access for water operators and maintenance workers to check and serve the intake pump daily. Project

scope would include providing concrete box culverts under the roadway to prevent washouts.

- Other Alternatives: Relocate Pump
- Responsible Office: City of Yuba City Department of Utilities
- Priority (High, Medium, Low): Medium
- Cost Estimate: \$1 million
- Benefits (avoided Losses): By maintaining access to Low Lift Pump, which provides water for the City of Yuba City residents, the possibility of pump problems and water shortages if failure occurred are greatly reduced. Reduce costs associated with maintaining and repairing the roadway.
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds; Private Funds
- Schedule: 3-5 years
- **2009 Progress Report:** The City of Yuba City Department of Utilities is currently on schedule with this action item. Staff is working with the California Office of Emergency Services and FEMA to obtain a grant to fund a portion of this project. Construction is anticipated to begin next summer.

ACTION #4: RELOCATION OF WASTEWATER EFFLUENT DISCHARGE PONDS

- Issue/Background: During the 1986, 1996, and 2006 storm events, major storm damage occurred to the six wastewater effluent ponds. Damage that occurred included erosion of access roads, damage to concrete spillway structures, deposition of soil into the ponds, and damage to existing riprap. FEMA and OES have funded reconstruction of the ponds after each of the three storm events. This project entails moving the ponds out of the floodway onto the landside of the floodway either on the east or west side of the Feather River.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Department of Utilities
- Priority (High, Medium, Low): High
- Cost Estimate: \$20 million
- Benefits (avoided Losses): Future mitigation and reconstruction costs of rebuilding the ponds after a major storm event.
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds
- Schedule: 1-5 years as funding is available
- **2009 Progress Report:** The City of Yuba City Department of Utilities will seek grant funding for this project. To date no grant funding solicitation packages have been available to fund this specific type of project.

ACTION #5: EAST AND WEST FEATHER RIVER BANK STABILIZATION

- Issue/Background: The Feather River floodway between Yuba City and Marysville is bounded by east and west levee structures. However, within the floodway, the main Feather River has eroded its banks in two areas accessed by Yuba City. One area is on the west side of the wastewater effluent ponds and another area is on the east side of the water supply intake access road. This project entails installing rip rap and stabilizing the river bank.
- Other Alternatives: Relocating water supply access road and wastewater effluent ponds. No Action.
- Responsible Office: City of Yuba City Department of Utilities
- Priority (High, Medium, Low): High
- Cost Estimate: \$1-2 million
- Benefits (avoided Losses): Property damage
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds
- Schedule: 1-5 years as funding is available
- **2008 Progress Report:** The City of Yuba City Department of Utilities will seek grant funding for this project. To date no grant funding solicitation packages have been available to fund this specific type of project.

ACTION #6: GILSIZER SLOUGH WEIR AT BOGUE ROAD

- *Issue/Background:* Gilsizer Slough is the main channel which runs through Yuba City transferring the drainage runoff generated by the majority of the City to the Sutter By-Pass. In the flood of 1955, the flood water backed into the City through the Gilsizer Slough flooding several properties. In order to prevent such occurrences from happening in the future, the slough will need to be "blocked" in case of a levee break in

the Yuba City Basin. Blocking the slough cannot be achieved after a break occurs because of the time it will take to construct a structure to block the slough. Constructing a weir that blocks the natural channel of the Gilsizer Slough will provide a structure in place to be utilized in preventing the flood water from backing into the city caused by a levee break.

- Other Alternatives: No Action
- Responsible Office: City of Yuba City Public Works Department
- Priority (High, Medium, Low): High
- Cost Estimate: \$3 million
- Benefits (avoided Losses): The backing up of flood water into Yuba City would cause billions of dollars in damage to properties and economic impacts to the entire Planning Area.
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds
- Schedule: 1-5 years as funding is available
- **2009 Progress Report:** The City of Yuba City Department of Public Works is currently on schedule with this action item.

ACTION #7: COMPREHENSIVE FLOOD MANAGEMENT PLAN

- Issue/Background: Yuba City has completed a risk assessment for the city within the Multi-Hazard Mitigation Plan and needs to develop a comprehensive flood management plan that includes an assessment of existing data, future data needed, and projects to provide 200-year level of flood protection for the city.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Department of Public Works
- Priority (High, Medium, Low): High
- Cost Estimate: \$1 million
- Benefits (avoided Losses): Life Safety, Property damage
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds
- Schedule: 1-3 years
- **2009 Progress Report:** The City of Yuba City Department of Public Works is currently on schedule with this action item. Public Works, Building, and Community Development have been working together to prepare for the upcoming FEMA Map Modernization Process which will change the community's floodplain management regulations and Special Flood Hazard Areas.

ACTION #8: IMPLEMENTATION OF ADDITIONAL CRS ACTIVITIES

- Issue/Background: The CRS program reduces the flood insurance premiums for city residents. The City has qualified for a Class 8 that provides a 5% discount for preferred insurance customers and 10% for mandatory flood insurance customers. The City can work towards a Level 1 that would reduce mandatory flood insurance by 45% and reduce preferred insurance rates to 10%. Funding and implementing additional activities will allow the City to increase their rating.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Department of Public Works
- Priority (High, Medium, Low): High
- Cost Estimate: \$500 thousand to \$1.5 million
- Benefits (avoided Losses): Life Safety, Property damage
- Potential funding: HMGP, PDM, FMA; State Funds & Grants; Local Funds
- Schedule: 1-3 years
- **2009 Progress Report:** The City of Yuba City Department of Public Works is currently working on improving CRS classification annually to increase the discount rate given towards the purchase of flood insurance. In the coming year, the Department of Public Works will be applying for additional CRS credits to receive a lower CRS classification.

ACTION #9: FLOODPLAIN MANAGEMENT PLANNING OUTREACH PROJECT

- Issue/Background: Outreach to the community is essential during development of a comprehensive flood management plan. The outreach will be conducted and input used during development and implementation of the plan.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Department of Public Works
- Priority (High, Medium, Low): High
- Cost Estimate: \$250 thousand to \$1 million
- Benefits (avoided Losses): Life Safety, Property damage
- Potential funding: Local Funds – CIP budgets, federal and state grants
- Schedule: 2007 to 2010
- **2009 Progress Report:** The City of Yuba City Department of Public Works is currently on schedule with this action item.

WILDFIRE MITIGATION ACTIONS

ACTION #10: FIRE FLOW IMPROVEMENTS FOR GROUNDWATER REGIONS 1, 2, AND 3 INCLUDING AREAS SERVED BY SURFACE WATER.

- Issue/Background: These do not meet city standards to meet fire flows and provide adequate water pressure.
- Other Alternatives: No Action
- Responsible Office: City of Yuba City Department of Utilities
- Priority (High, Medium, Low): Medium
- Cost Estimate: \$25 million
- Benefits (avoided Losses): Life safety, Property loss
- Potential funding: Federal and state funding, Local Funds – CIP budgets, Grant funds
- Schedule: Future project 2013 contingent on funding
- **2009 Progress Report:** The City of Yuba City Department of Utilities is currently on schedule with this action item.