Figure 6.1
MRWPCA Local Hazard Mitigation Plan
Prioritized Goals and Actions

Revised Draft: December 2005

Goals	Actions	Priority
1. Minimize loss of life and property from hazard events		
1.01	Assure that all Agency personnel are familiar with the Business Response Plan (which describes procedures to be implemented in the event of specific localized emergencies or natural disaster) in advance of an emergency (Emergency Response Team)	**1**
1.02	Assure that Emergency Response Team members have adequate training to be able to respond in an emergency (Emergency Response Team)	**1**
1.03	Assure that evacuation is safe and efficient (Emergency Response Team	**1**
1.04	Assure that communications (two-way radios, the comprehensive interior and exterior paging system) is maintained in working order (Utilities)	**1**
1.05	Assure that warning devices (alarm bells, horns) are all in working order (Utilities)	**1**
1.06	Assure that locations of primary and alternate evacuation routes, emergency exits, primary and alternate staging areas are prominently posted throughout the facility in locations that are visible to employees and visitors. (Safety Officer)	**1**
1.07	Provide training to appropriate employees in the handling, storage and control of hazardous materials (Safety Officer)	**1**
1.08	Provide training to appropriate employees in the handling of chlorine, the proper use of breathing apparatus, and what to do in case of emergency (Safety Officer)	**1**
1.09	Assure that all personnel who could be exposed to hazardous materials are trained in the proper use of personal protective equipment (Safety Officer)	**1**
2. Mitigate for disasters		
2.01	Identify hazards and assess risk for the Agency service area through the development and maintenance of the LHMP (Safety Officer)	**1**
2.02	Determine increased risk from specific hazards due to location and other factors. Specific hazards addressed are coastal erosion and coastal storm, drought, earthquake, expansive soils, flood and tsunami. This will be accomplished through development and maintenance of the LHMP (Emergency Response Team and Engineering)	**1**
2.03	Ensure that all new construction is completed using the latest earthquake-resistant design techniques that will limit damage caused by earthquakes	**1**
2.04	Ensure that all new construction within the 100-year flood zone is completed using design techniques that will limit damage caused by floods, using the latest edition of the California Building Code	**1**

Goals	Actions	Priority
2.05	Continue to repair and make structural improvements to pipelines to enable them to perform their design capacity	**1**
2.06	Continue maintenance efforts to keep pipelines free of obstructions to allow for the free flow of sewage	**1**
2.07	Develop and implement a hazard mitigation strategy based on the risk and vulnerabilit assessment through the development and maintenance of the Agency LHMP (Safety Officer and Engineering)	**2**
2.08	Ascertain historical incidence and frequency of occurrence of hazards through the development and maintenance of the MRWPCA LHMP (Safety Officer)	**2**
2.09	Enhance the Agency's capability to conduct hazard risk assessments through the development and maintenance of the LHMP, and by review of the plan in 4 years and major update of the plan in 5 years (All)	**2**
2.10	Enhance the Agency's capability to track mitigation activities throughout the service area by developing a matrix containing each mitigation goal, purpose and actions, relevant hazard, along with project status, funding, and responsible department. This matrix is to be reviewed 2 years after completion of the LHMP and updated within 4 years. (Safety Officer and Engineering)	**2**
2.11	Pursue available grant opportunities to obtain funding for mitigation activities (Engineering)	**2**
2.12	Identify mitigation measures for facilities susceptible to coastal storms and coasta erosion (Safety Officer and Engineering)	**2**
2.13	Identify mitigation measures for earthquake (Safety Officer and Engineering	**2**
2.14	Conduct more detailed geological investigations of MRWPCA facilities to determine the risk of damage from expansive soils. (Engineering)	**2**
2.15	If evidence of expansive soils is found, identify mitigation measures for then	**2**
2.16	Identify mitigation measures for facilities susceptible to flood (Safety Officer an Engineering)	**2**
2.17	Identify mitigation measures for facilities susceptible to tsunami (Safety Officer an Engineering)	**2**
2.18	Work with the Tsunami Incident Response Plan Planning Group, in cooperation with the Monterey County Office of Emergency Services, to identify mitigation measures for facilities susceptible to tsunami (Safety Officer)	**2**
2.19	Pursue available grant opportunities to obtain funding for mitigation activitie	**2**
2.20	Continue to pursue drought protection projects for residents of the MRWPCA service area. (Engineering)	**3**

Goals	Actions	Priority
3. Increase public education and awareness of hazards to MRWPCA facilities so that area residents can better anticipate and prepare for them		
3.01	Coordinate with member jurisdictions to increase the level of knowledge and awareness for area residents on the hazards that routinely threaten the area and how they affect MRWPCA facilities (Engineering)	**4**
3.02	Coordinate with member communities to provide information to the public related to coping with disrupted sewage lines and wastewater treatment (Emergency Response Team and Engineering)	**4**
4. Assure that MRWPCA's essential facilities maintain operations during a disaster and afterward during recovery operations		
4.01	Assure that essential facilities at the regional wastewater treatment plant and administration office are adequately protected from flooding to the greatest extent possible, in accordance with the most recent building codes(Engineering)	**2**
4.02	Assure that backup systems exist for critical facilities to the greatest extent possible (Maintenance)	**2**
4.03	Plan for speeding the repair and functional restoration of critical systems through stockpiling of shoring materials, temporary pumps, surface pipelines, and other supplies (Emergency Response Team, Operations and Maintenance)	**2**
4.04	Pre-position emergency power generation capacity (or have rental/lease agreements for these generators) in critical locations to maintain continuity of MRWPCA services (Maintenance)	**2**
5. Make MRWPCA facilities more resistant to earthquake hazard		
5.01	Explore the feasibility of completing a structural analyses of the most critical pump stations (Engineering)	**3**
5.02	Explore the feasibility of completing geotechnical investigations and consideration of replacement alternatives and joint strengthening for selected portions of the interceptors (Engineering)	**3**
5.03	Explore the feasibility of a seismic vulnerability assessment of all pump stations and to identify areas of possible liquefaction that could impact MRWPCA pipelines (Engineering)	**3**
6. Make MRWPCA transportation facilities less vulnerable to natural hazards		
6.01	Explore the feasibility of retaining an independent corrosion specialist to assess the condition of external corrosion on the Agency's transport system and to develop a long-term program for the maintenance of the corrosion protection system;	**4**

Goals	Actions	Priority
6.02	Explore measures to extend the useful life of the wastewater transport system force mains beyond 100 years by implementing proper corrosion protection measures (Engineering)	**4**
6.03	Explore the feasibility of televising gravity interceptors to identify structural and joint problems and to verify the condition of the protective linings (Field Maintenance)	**4**
6.04	Provide flexibility for the discharge force main at all pumping station structures (Engineering)	**4**

7. Prevent sewage spills to the greatest extent possible

7.01	Explore the feasibility of completing a review of the electrical control systems for the major pump stations to determine if there are enough independent operations between each of the control systems to ensure that failure of a single system or component cannot disable the entire station (Utilities)	**1**
7.02	Perform a feasibility study to determine if the use of supplemental containment is warranted, especially at pump stations where there are short detention times or sensitive environmental resources nearby, and where land is available (Engineering)	**1**
7.03	Update long-range plans for replacement or upgrade of key equipment and systems at MRWPCA facilities (update should include an assessment of future demands on the system, the expected life and performance of equipment, the possibility of technical obsolescence, and the availability of parts) (Engineering)	**1**

NOTES:

1 (The responsible agency department is in parentheses after each action

2 All = A collaborative effort by all agency departments

3 Priorities are as follows:

1 = Highest Priority
2 = High Priority
3 = Medium Priority
4 = Low Priority