

**ANNUAL PROGRESS REPORT**  
**for the**  
**LOCAL HAZARD MITIGATION PLAN**

**(Adopted June 7, 2012, City Resolution 2012-175)**

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**August 17, 2013**

## Overview

The September 2011 Local Hazard Mitigation Plan (LHMP) is part FEMA's Community Rating System (CRS) program that the City of Sacramento (City) participates in to receive discounts on flood insurance and to be eligible for FEMA's Pre-Disaster Mitigation and Hazard Mitigation Grant programs. Currently, the City has approximately 49,000 flood insurance policies. It is a Class 5 in the CRS program, which allows up to a 25% discount on flood insurance. This is a savings of approximately \$1.7 million per year to the community.

The LHMP is a county-wide document that includes a risk assessment to identify and profile natural hazards and examine the capabilities in place to mitigate them. The City is vulnerable to several natural hazards, such as flooding, levee and dam failures, and wildfires.

The CRS program requires an Annual Progress Report (report) on the LHMP with the following requirements:

- A. **Action Items Review:** A review of each action item in the LHMP that describes what was implemented (or not implemented), and recommended changes to the action items as appropriate.
- B. **Outreach:** The report must be made available to the local media and the public (including the property owners and residents), governing board, and the state National Flood Insurance Program Coordinating Office.
- C. **City's Annual CRS Recertification:** The report must be submitted with the community's annual recertification.

The report must also provide input on whether each action item has met the defined goals of the LHMP. If not, this report must determine what additional measures may be implemented to reach these goals. The goals are:

- A. *Minimize the loss of life, injury, and property damage from natural hazards (reduce the risk and vulnerability of the community to hazards through mitigation efforts).*
- B. *Enhance public awareness of the affects of natural hazards and public understanding of disaster preparedness.*
- C. *Improve the capabilities of the community to mitigate or reduce losses from natural hazards.*
- D. *Position jurisdictions for Federal and State grant funding.*

## Action Items Review

This section discusses the status of each mitigation action recommended in the LHMP for the City. The planning team for the City identified and prioritized the following mitigation actions based on the risk assessment and in accordance with the process outline in Section 5, Mitigation Strategy, of the LHMP. Background information on these mitigation actions are found in Annex F of the LHMP.

## ***1. CRS Public Information Pilot Program***

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**Hazards Addressed:** Flood, Dam Failure, Levee Failure

**Issue/Background:** The 2012 CRS Public Information Series is being revised to credit CRS communities for developing programs for public information specifically tailored to their particular hazards, natural resources, and audiences. Such a program would be like an existing public information strategy but using more creative approaches to communicate with target audiences. The revision will also include measurement techniques to assess outcomes and redirect programs as needed to achieve desired outcomes.

**Other Alternatives:** Continue with existing public information program for CRS

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** CRS program

**Responsible Office:** County DWR Drainage Development section and the City of Sacramento DOU

**Cost Estimate:** Staff time

**Benefits (Losses Avoided):** Life Safety, Property Protection

**Potential Funding:** Annual budgets

**Schedule:** 2011 - ongoing

### **Status Action Item #1:**

In 2011, the City and County met several times with members from the public to draft a CRS Public Information Pilot Program based on the 2012 Draft CRS Manual at that time. The City and County ran into many problems creating a PPI. The County and City are discussing hiring a consultant to write a PPI along with a flood insurance coverage improvement plan (CI).

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

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**Issue/Background:** Local jurisdiction reimbursement for mitigation projects and cost recovery after a disaster is guided by Government Code Section 8685.9. Specifically, this section requires that the City must adopt a local hazard mitigation plan (LHMP) in accordance with the federal Disaster Mitigation Act of 2000 as part of the safety element of its general plan adopted pursuant to subdivision (g) of Section 65302. It is important for the City of Sacramento to incorporate the City's LHMP annex into the safety element as part of the next general plan update.

**Other Alternatives:** No feasible alternatives

**Responsible Office:** City of Sacramento Community Development Department

**Priority (High, Medium, Low):** High

**Cost Estimate:** \$8,000-10,000 application fees

**Potential Funding:** State and/or Federal Grant

**Benefits (avoided Losses):** Planning documents will help the City maximize potential for state reimbursement

**Schedule:** As soon as possible

**Status Action Item #2:**

The LHMP was incorporated into our Safety Element of the City’s General Plan in 2007. It will remain in the General Plan in future revisions. See below.



**GOAL PHS 4.1**

Response to Natural and Human-Made Disasters. Promote public safety through planning, preparedness, and emergency response to natural and human-made disasters.

**Policies**

**PHS 4.1.1** Multi-Hazard Emergency Plan. The City shall maintain and implement the Multi-Hazard Emergency Plan to address disasters such as earthquakes, flooding, dam or levee failure, hazardous material spills, epidemics, fires, extreme weather, major transportation accidents, and terrorism. (MPSP)



The Sacramento Fire Department responding to a fire emergency along a 300-foot stretch of an elevated Union Pacific railroad trestle.

Adopted March 3, 2009

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**3. Evaluation and Mitigation of Critical Facilities in Identified Hazard Areas**

**Hazards Addressed:** Flood, Dam Inundation, Levee Failure, Wildfire

**Issue/Background:** Based on the critical facility analysis completed for this plan, over 3,000 critical facilities have been identified within the Sacramento County Planning Area. This number is anticipated to go up based on additional mapping of critical facilities as the GIS mapping effort is completed. For Sacramento County, 52 mapped critical facilities have been identified within the 100 year floodplain and another 164 (81-city) in the 500-year floodplain. Due to the significant number of critical facilities identified within the flood and other hazard areas, additional evaluation of each affected facility is required in order to determine which facilities should be potentially relocated and/or protected. The end result of this analysis will be a list of facilities within the 100- and 500-year floodplain and their mitigation recommendations and priorities.

**Other Alternatives:** No action, remove all critical facilities from the floodplain.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** This will be implemented through the County floodplain management program

**Responsible Office:** City Floodplain Management Group

**Cost Estimate:** Analysis and recommendations should involve staff time; resulting mitigation measures will be cost on an individual facility basis.

**Priority (H, M, L):** High

**Benefits (Losses Avoided):** Analyzing mitigation measures for critical facilities will increase both property protection and life safety for City residents.

**Potential Funding:** Existing budgets.

**Schedule:** Within five years

**Status Action Item #3:**

Much work has been accomplished to map critical facilities and to assess risks in the LHMP. As funds are available, further analysis will be conducted.

***4. CVFPP - Flood Emergency Plan***

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**Hazards Addressed:** Flooding

**Issue/Background Statement:** SB 5 and other associated legislation is requiring that a Central Valley Flood Protection Plan be adopted in 2012. As part of this plan, the City, because it is located within the Sacramento-San Joaquin Valley, is required to collaborate to develop flood emergency plans within 24 months of the adoption of the CVFPP.

**Other Alternatives:** No feasible alternatives

**Existing Planning Mechanisms through which Action will be Implemented:**

**Responsible Office:** City of Sacramento, DOV

**Priority (H, M, L):** Medium

**Cost Estimate:** \$75,000

**Benefits (Losses Avoided):** Compliance with the State of California, increased flood protection

**Potential Funding:** Possible grant funding

**Schedule:** End of 2011

**Status Action Item #5:**

A DWR grant will be awarded to the City and County of Sacramento, reclamation districts, and other local partners in September 2013. The grant will include writing a regional emergency action plan, upgrading the ALERT system, funding part of the new reverse 911 system, flood inundation maps, and emergency response training. It has been over 5 years since the City updated the Department of Utilities' emergency operation and emergency plans.

***5. Adopt Additional Floodplain Development Standards***

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**Hazards Addressed:** Flooding

**Issue/Background:** The City has created a Development Services Task Force that has been meeting monthly to discuss the City adopting additional floodplain development standards to be added to the

City's Floodplain Ordinance. The standards may include adopting the code standards created by DWR voluntarily before they are mandatory. This also may include evacuation and rescue requirements, additional freeboard, and 200-year level of protection.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** The Development Service Task Force is a mitigation measure of the 2010 Corrective Action Plan created to help remediate building permit violations.

**Responsible Office:** City of Sacramento, DOU & CDD

**Cost Estimate:** Staff time

**Benefits (Losses Avoided):** New and substantially improved structures will be better protected from flooding.

**Potential Funding:** N/A

**Schedule:** 2012

**Status Action Item #6:**

The Development Services Task Force has made recommendations on additional floodplain development standards and submitted them to FEMA. These will be added to the City's Floodplain Ordinance once the Comprehensive Flood Management Plan is complete.

***6. Update the General Plan to include the requirements of the CVFPP***

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**Hazards Addressed:** Flooding

**Issue/Background:** SB 5 and other associated legislation is requiring that a Central Valley Flood Protection Plan be adopted in 2012. The City, because it is located within the Sacramento-San Joaquin Valley, is required to amend its General Plan to incorporate the CVFPP's data, policies, and implementation measures.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:**

Amend General Plan within 24 months of the CVFPP adoption:

- Amend Land Use Element to require reviewing it annually and updating it to identify areas subject to flooding
- Amend Conservation Element to identify areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management.
- Amend Safety Element to add 200-year floodplain maps and levee protection zone maps.

Amend Zoning Ordinance within 36 months of the CVFPP adoption, but not more than 12 months after the amendment of the General Plan to include restrictions on development in a floodplain.

**Responsible Office:** City of Sacramento

**Cost Estimate:** \$0/Lots of staff time

**Benefits (Losses Avoided):** Compliance with the State of California, increased flood protection

**Potential Funding:** Possible grant funding

**Schedule:** 2012-2016

**Status Action Item #7:**

The CVFPP was adopted on June 29, 2012. As stated in SB1278, which replaced SB 5, on or before July 2, 2013, the State will provide 200-year flood maps and levee reliability data for 200-year levee certification. The City received these maps. The City must amend its general plan within 24 months of July 2, 2013. The City has updated its General Plan and has incorporated the required maps and policies to comply with the CVFPP and proposed SB1278. This work is scheduled to be completed by December of 2013.

***7. Historic Magpie Creek Study***

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**Hazards Addressed:** Flooding

**Issue/Background:** For years, the City has used floodplain maps and data from the City's Drainage Master Plan and a Corps study for development purposes in the Historic Magpie Creek floodplain. The City would like to have this area studied and have the actual current floodplain and BFEs incorporated into the DFIRMs. FEMA is in the process of restudying this area.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** FEMA is in the process of restudying historic Magpie Creek.

**Responsible Office:** City of Sacramento, DOU

**Cost Estimate:** \$0

**Benefits (Losses Avoided):** Base Flood Elevations provided for development will be more accurate, and the correct data will be on the DFIRMs. Structures that will be put into the floodplain will be required to carry flood insurance, which will protect those structures.

**Potential Funding:** \$0 (Funded by FEMA)

**Schedule:** End of 2011

**Status Action Item #7:**

FEMA's new guidelines, "The Revised Analysis and Mapping Procedures for Non-Accredited Levees", are in final form as of July 2013. The guidelines were in draft form since December 2011. Using the new guidelines will allow the City and FEMA to map the Magpie Creek floodplain assuming overtopping of the diversion instead of just assuming the diversion is non-existent. This will allow for more accurate and realistic floodplains. The City will contact FEMA Region 9 in the fall of 2013 to start the physical map revision study for Magpie Creek again.

***8. South Sacramento Streams Project: Union Pacific Railroad Flood Wall***

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**Hazards Addressed:** Flooding

**Issue/Background:** Part of the South Sacramento Streams Project is to construct a flood wall along the Union Pacific Railroad between Unionhouse Creek and Morrison Creek. The design for the floodwall is nearly complete (finish in 2011). The City will coordinate with SAFCA on proposed flood wall

improvements and a Letter of Map Revision. These improvements will remove a large area of A99 Flood Zone on the east side of Morrison Creek between Unionhouse and Elder Creek.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** This is a priority of SAFCA and the City. SAFCA has budgeted funds for this project.

**Responsible Office:** SAFCA/USACE

**Cost Estimate:** \$8 to 10 million

**Benefits (Losses Avoided):** Provides for greater than 100-year protection reducing estimated annual damages for over 1,000 homes, allowing residents to purchase PRP flood insurance policies.

**Potential Funding:** SAFCA/State of California/Corps of Engineers

**Schedule:** 2012

**Status Action Item #8:**

The flood wall was completed at the 2012. The certification data for the flood wall was submitted to FEMA on June 18, 2013. It is anticipated that the LOMR will be effective in the winter of 2013/2014.

***9. Natomas Levee Improvement Project (NLIP)***

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**Hazards Addressed:** Flooding

**Issue/Background:** The Natomas Basin was remapped from a Zone X to a Zone AE on December 8, 2008. Significant progress has been made on the NLIP in the last 4 years to fix the levees around the Natomas Basin. Work on about 5 miles of the Natomas Cross Canal and 7 miles of the Sacramento River were completed in 2010. SAFCA is working on another six miles along the Sacramento just south of the airport, which would complete half the improvements needed to meet the Federal Standard for providing the Natomas Basin with at least a 100-year of flood protection and to meet the A99 zone requirement.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** This is a priority of SAFCA and the City. SAFCA has budgeted funds for this project to reach A99 through assessments, State, and Federal money. USACE will complete the project to reach the 100-year and 200-year flood protection.

**Responsible Office:** SAFCA/USACE/County DWR/City DOU

**Cost Estimate:** \$780 million

**Benefits (Losses Avoided):** Once complete the project will provide greater than 200-year protection reducing estimated annual damages and would also remove structures from AE floodplain, allowing residents to purchase PRP flood insurance, and lifts development restrictions in Natomas (Zone A99).

**Potential Funding:** SAFCA/State DWR/ Corps of Engineers

**Schedule:** A99 Zone: 2012 pending federal authorization; X Zone: 2018

**Status Action Item #9:**

At this time, the work is complete to obtain A99 Zone in the Natomas Basin. Unfortunately, the project still needs federal authorization for the NLIP by congress, which is required by FEMA for A99. The LOMR application for A99 was submitted to FEMA. For 200-year protection and to obtain X Zone for

the basin, it is predicted that this construction work will be completed in approximately 2019 by the Corps.

### ***10. Retrofit of Repetitive Loss Properties***

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**Hazards Addressed:** Flooding

**Issue/Background:** The City has set a goal to remove at least 4 repetitive loss structures from FEMA's Repetitive Loss List within the City. Some of these properties could be structurally retrofitted to fix the flooding problem. One structure is in the City's combined sewer system and is in a low lying area. Some other structures have sunken living room and water seeps into the house. All of these structures need to be elevated and/or retrofitted. The first step is to identify interested property owners and try to obtain grant money to assist with these retrofits.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Mitigation of repetitive loss properties is a mitigation measure in the City's 2010 Corrective Action Plan approved by FEMA.

**Responsible Office:** City of Sacramento, Dept. of Utilities

**Cost Estimate:** About \$250,000

**Benefits (Losses Avoided):** No more structural damage and flood insurance claims

**Potential Funding:** FEMA grants, Corrective Action Plan funding, and DOU

**Schedule:** August 2010-September 2013

#### **Status Action Item #10:**

The City submitted a request to FEMA in December 2007 and September 2009 to remove 19 properties from the Repetitive Loss List. In the January 2011 repetitive loss data, these 19 properties were removed from the unmitigated Repetitive Loss list. The list has dropped from 40 to 21 properties.

Grants were applied for in September 2011 to retrofit 3 repetitive loss properties, but the Local Hazard Mitigation Plan was not approved by FEMA and City Council until June 2012. Grants will be pursued in the next round in 2013. Applications are due in October 2013.

### ***11. Preferred Risk Policy (PRP) Outreach Campaign***

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**Hazards Addressed:** Flooding

**Issue/Background:** The City will perform an aggressive City outreach campaign to increase NFIP PRP policyholders by 10% throughout the City.

**Other Alternatives:**

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** The PRP Outreach campaign is a mitigation measure of the 2010 Corrective Action Plan created to help remediate building permit violations.

**Responsible Office:** City of Sacramento, Dept. of Utilities

**Cost Estimate:** \$100,000

**Benefits (Losses Avoided):** Structure protection from floods

**Potential Funding:** Possible grants, CDD, and DOU

**Schedule:** December 2010- December 2011 (or until goal is reached)

**Status Action Item #11:**

Since July 2010, the City has engaged in a public education campaign to educate property owners in the City of Sacramento about PRP policies, the benefits of having a PRP to protect your home and investment, and the dangers of living behind levees. In Spring of 2011, City staff attended 6 community meetings in Natomas held by the Sacramento Area Flood Control Agency and hosting a table at each of the meetings sharing information regarding the importance of flood insurance. The City also worked with the Sacramento Business Journal and the Natomas Buzz on stories pertaining to the impacts of the Corrective Action Plan and the current flood zone designation in Natomas.

The City also promoted flood insurance by: insertion of the “Be Flood Ready” Brochure in the November City of Sacramento Utility Bills; the billboard on Business Interstate 80 carrying the “Be Flood Ready. Buy Flood Insurance.” Message from November 2010-February 2011; and ads on Regional Transit buses for November and December 2010 stating “Be Flood Ready. Buy Flood Insurance.”

The City has seen more than a 10% increase in PRP policies within the City since 2010. Although, this is hard to measure since Natomas residents were in the 2-year PRP extension program.

	<b>AE, A,A0, AH</b>	<b>AR,A99, STD.X</b>	<b>PRP</b>	<b>TOTAL</b>
Apr-08	NA	NA	NA	43,789
Aug-08	737	12,360	30,050	43,147
May-09	1,318	16,984	30,107	48,409
Aug-09	924	30,974	19,459	51,357
May-10	1,047	15,091	33,434	49,572
Sep-10	1,106	15,372	32,722	49,200
Mar-12	791	10,676	36,459	47,926

***12. Drainage Projects for Repetitive Loss Properties***

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**Hazards Addressed:** Flooding

**Issue/Background:** The City has set a goal to remove at least 4 repetitive loss (RL) structures from FEMA’s Repetitive Loss List within the City by September 2013. A lot of the RL structure have flooded

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because undersized local drainage issues. Many potential drainage projects that have been identified in the City's Drainage Master Plans. These projects include upsizing pipelines, adding detention basins, adding bypass pipelines, retrofitting pump stations, and land acquisition. These projects will be ranked and grant funding will be pursued.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Mitigation of repetitive loss properties is a mitigation measure in the City's 2010 Corrective Action Plan approved by FEMA.

**Responsible Office:** City of Sacramento, Dept. of Utilities

**Cost Estimate:** \$0.2 million - \$15 million per project

**Benefits (Losses Avoided):** No more structural damage and flood insurance claims

**Potential Funding:** FEMA grants, Corrective Action Plan funding, and DOU

**Schedule:** August 2010-September 2013

**Status Action Item #12:**

The City submitted a request to FEMA in December 2007 and September 2009 to remove 19 properties from the Repetitive Loss List. In the January 2011 repetitive loss data, these 19 properties were removed from the unmitigated Repetitive Loss list. The list has dropped from 40 to 21 properties.

Grants were applied for in September 2011 to retrofit 3 repetitive loss properties, but the LHMP was not approved by FEMA and City Council until June 2012. Grants will be pursued in October 2013. The City listed a local drainage project for 3 repetitive loss sites in the 2013 American River Basin Integrated Water Management Plan, which allows for grant opportunities.

***13. Unionhouse Creek Existing Conditions LOMR and Channel Improvements***

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**Hazards Addressed:** Flooding

**Issue/Background:** In June 2011, Unionhouse Creek was modeled using current data (i.e., updated hydrology and topography data), and it was found that about 1,100 structures could be removed from the A99 zone between Franklin Boulevard and Highway 99. This will allow cheaper flood insurance rates for the residents living in this area. The City plans to submit an existing conditions LOMR to FEMA using this new model.

In addition, channel improvements for Unionhouse Creek are being analyzed to bring Unionhouse Creek up to the 100-year or 200-year level. The City will coordinate with SAFCA on proposed channel improvement on Unionhouse Creek. These channel improvements would remove about an additional 400 structures from the A99 flood zone between Franklin Blvd. and Highway 99. This will be accomplished by widening the channel bottom and/or concrete lining the channel. SAFCA and the City will submit a CLOMR to FEMA with the proposed channel improvements.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:**

This is a priority of SAFCA and the City. SAFCA has budgeted funds for this project and grants have been applied for.

**Responsible Office:** City

**Cost Estimate:** \$75,000 for existing conditions LOMR, \$75,000 for CLOMR, up to \$4 million for channel improvements

**Benefits (Losses Avoided):** Removes structures from A99 floodplain and allow cheaper flood insurance for the area and reduces flood risk to the community and associated damages

**Potential Funding:** Possible grants, SAFCA, and/or DOU; Regional Transit

**Schedule:** Existing conditions LOMR – 2011, CLOMR – 2012, Channel improvements – scheduled for 2012

**Status Action Item #13:**

The construction for channel improvements along Unionhouse Creek was finished at the end of 2012. A CLOMR was not completed for Unionhouse Creek because the Base Flood Elevation was not increased with the proposed project. A LOMR was submitted in Spring of 2013 to reflect the Unionhouse Creek project. This will remove approximately 1500 parcels from the A99 floodplain. The LOMR was revised and resubmitted in June 2013 to include the UPRR railroad floodwall, which will remove an additional 1500 parcels.

***14. Emergency Notification and Evacuation Planning***

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**Hazards Addressed:** Flood Emergency Response

**Issue/Background:** As part of a corrective action plan approved by FEMA, the City of Sacramento in conjunction with the Sacramento Office of Emergency Services has committed to upgrading and improving emergency notification and evacuation planning systems and processes using the current Reverse 911 system, which is administered by the Sacramento Police Department, as the primary method. This enhancement to the existing Reverse 911 system to more effectively notify mass populations of flood evacuation orders and routes, consistent with FEMA guidelines, identifying special needs communities and transportation providers, targeted outreach to maximize the capabilities of Reverse 911, and strategic training to assure effective deployment of the enhanced capabilities.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** The multi-hazard response plan and ongoing training programs administered by Sacramento Office of Emergency Services (SOES).

**Responsible Office:** SOES

**Cost Estimate:** Not to exceed \$350,000

**Benefits (Losses Avoided):** Better prepared evacuations, preventing loss of life

**Potential Funding:** \$350,000 appropriated from the City's Community Development Department as part of the City's Corrective Action Plan to FEMA.

**Schedule:** Full deployment, outreach and training completed by October 2011.

**Status Action Item #15:**

The Reverse 911 system of emergency notification is complete. Now, in addition to regular testing and deployment, two ‘self registration portal announcement’ system launches were completed (February 2012). These announcements reached 14,145 locations in the North Natomas / 95835 zipcode.

Communications Center Staff attended the Natomas Charter School Festival (May 2012) in an effort to educate area residents about the Reverse 911 system’s self registration portal for mobile devices. Staff took a wireless laptop so interested persons could initiate registration on site. The Winter 2012 edition of City Express, a quarterly City of Sacramento newsletter, included an article titled, “What is Reverse 911 and why should I sign up?”.

The County OES is currently pursuing a faster system than Reverse 911. The residents who have registered for Reverse 911 will be transferred to the new system.

***15. Drainage Projects from the City’s Priority Drainage Project List***

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**Hazards Addressed:** Local flooding

**Issue/Background:** The City is continually improving the local drainage system and the combined sewer and stormwater system. Many potential drainage projects that have been identified in the City’s Drainage Master Plans and have been prioritized on a Basin Master Planning and Improvement Projects priority list. These projects include upsizing pipelines, adding detention basins, adding pipelines, retrofitting pump stations, and land acquisition. These projects are ranked.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** The Department of Utilities has a Drainage CIP group who manage these types of projects.

**Responsible Office:** City of Sacramento, Dept. of Utilities

**Cost Estimate:** \$200,000 to 15,000,000 per project

**Benefits (Losses Avoided):** No more structural damage and flood insurance claims

**Potential Funding:** FEMA grants and DOU CIP funds

**Schedule:** August 2011-September 2015

**Status Action Item #16:**

The drainage projects constructed last year included:

Sump 157 Trash Rack - \$1,090,000

Pump Station Outfall Repair -\$63,000

Pocket Canal Lining Phase 4 – \$150,000

Boyce Drive Relief Pipeline - \$600,000

PG&E Ditch Improvements - \$888,000

Unionhouse Creek Flood Control Project - \$1.1 million with SAFCA

The design and/or construction of following projects are being funded this year:

North Natomas Drainage Basin 8b - \$10,603,494  
Sump 157 Access Ramp – \$38,000  
Sump 101 Electrical Rehab - \$1,057,380  
Delta Shores & SOI Mater Plan – N/A  
I-5 Corridor Landscape Project - \$1,100,000  
Sump 115 Electrical Rehab - \$160,000  
Natomas 7A & 7B Basins Lining/low-flow pipe - \$398,353  
Sump 90, 96, 141 Trash Rack Pre-Design – \$75,000  
Riza Ditch Improvement Design – \$30,000  
Sump 38 & 39 switchgear replacement - \$360,000  
Sump 152 Switchgear - \$575,000  
Firehouse Channel Improvements - \$130,000  
River Park drainage Improvements - \$512,000

***16. Coordinate with SAFCA, CA-DWR, USACE, and Sacramento County on Proposed Flood Control projects on Magpie Creek (from 2005 Plan)***

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**Hazards Addressed:** Flood

**Issue/Background:** The proposed project would involve raising a portion of the Magpie Creek Diversion Channel (MCDC) levee between Raley Boulevard and Vinci Street, constructing a short section of new levee along Raley Boulevard to prevent outflanking flows, purchasing and preserving 80 acres of lands generally between Magpie and Don Julio Creeks to detain peak flows during major flood events, constructing a new maintenance road between Vinci Avenue and Dry Creek Road adjacent to the left bank (looking downstream) of the MCDC, and constructing a new culvert under the bike trail at Robla Creek. No channel widening is proposed.

Residents in the area have voiced concerns about the proposed bike trail culvert size at Robla Creek. The new culvert must be adequate to prevent flows from backing up into Robla Creek. In a SAFCA 13 March 2002 Declaration, SAFCA proposed the addition of a 30 feet wide by five feet high culvert at the Bike Trail. This created an additional 150 square feet of area for the storm water to flow through the Bike Trail. A USACE January 2004 document is proposing culverts of about 75 square feet in area, which is half of SAFCA’s proposal. This could potentially cause flood problems in the unincorporated County, while alleviating problems in the incorporated area.

**Other Alternatives:** No Action and areas of Historic Magpie Creek are remapped into the floodplain.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** SAFCA originally estimated construction in 2006, but the project is not scheduled now.

**Responsible Office:** SAFCA/UASCE/ County DWR/ City Department of Utilities

**Cost Estimate:** Unknown

**Benefits (Losses Avoided):** Protects the safety of residents and their structures. Flood insurance relief to residents in the Historic Magpie Creek floodplain.

**Potential Funding:** SAFCA/grants/City

**Schedule:** Unknown

**Status Action Item #16:**

In the beginning of 2012, SAFCA purchased four vacant parcels in the Magpie Creek 100-year floodplain with a FEMA grant. The parcels are along Raley Blvd. between Vinci and Santa Ana Ave. The proposed project has not been constructed.

***17. Coordinate with the County and State to Create defensible space to protect vital infrastructure located in the American River Parkway from wildfires (from 2005 Plan)***

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**Hazards Addressed:** Wildfire

**Issue/Background:** Major power lines traverse the American River Parkway in the vicinity of Bushy Lake. Tree and brush growth amongst the transmission line towers pose a potential wildfire hazard that could lead to major power disruption.

**Other Alternatives:** No action.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:**

**Responsible Office:** Coordinate with Sacramento County, State of California, SMUD, City Department of Utilities, City Fire Department

**Cost Estimate:** TBD. Costs exists in budgets

**Benefits (Losses Avoided):** Cost of cutting/thinning vegetation in vicinity of transmission line towers is less than replacing the towers, or the cost of interrupted service, should there be a fire.

**Potential Funding:** Grants/City/County/State/SMUD

**Schedule:** Ongoing

**Status Action Item #17:**

Ongoing. The City of Sacramento Fire Department and City Emergency Services are working with the Sacramento County Parks Department who oversees the American River Parkway. The County Parks Department is currently controlling vegetation growth surrounding SMUD, PG&E and WAPA transmission lines that traverse the parkway.

***18. Update the critical facilities identified during this DMA planning effort with the City's GIS technical group to support emergency management efforts. (from 2005 Plan)***

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**Hazards Addressed:** Flood, Wildfire, Dam Failure, Severe Weather, Levee Failure

**Issue/Background:** GIS databases of critical facilities have been used by the City for incident management and emergency planning purposes. These databases need to be updated with the results from GIS analysis associated with the development of the Multi-Hazard Mitigation Plan.

**Other Alternatives:** No action.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:**

**Responsible Office:** City GIS Technical Group, City Department of Utilities, and City/County Office of Emergency Services

**Cost Estimate:** City staff time

**Benefits (Losses Avoided):** Life safety

**Potential Funding:** None

**Schedule:** 2011

**Status Action Item #18:**

The CD received from AMEC with GIS database was blank. Critical facilities list will be updated by OES.

**Outreach**

This report will be made available to the local media and the public (including the property owners and residents) by posting it on the City's "Be Flood Ready" website next to the LHMP link. The City Council members will receive a copy of this annual progress report and the Department of Water Resources' National Flood Insurance Program Coordinating Office will be emailed a copy of the report.