



**Annex to 2010 Association of Bay
Area Governments
Local Hazard Mitigation Plan
*Taming Natural Disasters***

Santa Clara Valley Water District

TABLE OF CONTENTS

	Page
INTRODUCTION	1
THE REGIONAL PLANNING PROCESS	2
THE LOCAL PLANNING PROCESS	2
Process for Updating Plan Sections	3
Review and Incorporation of Existing Information.....	4
Public Meetings	4
PAST OCCURENCES OF DISASTERS (NATURAL AND HUMAN INDUCED).....	5
RISK/HAZARDS ASSESSMENT	6
Infrastructure Exposure	6
Urban Land Exposure.....	8
Repetitive Loss Properties.....	8
Other: Assessments, Projects, Plans	8
Hazards Conclusion	9
NATIONAL FLOOD INSURANCE PROGRAM.....	9
MITIGATION GOALS AND OBJECTIVES.....	9
MITIGATION ACTIVITIES AND PRIORITIES.....	10
Evaluation of Progress From 2005 Plan	10
Future Mitigation Actions and Priorities	11
On-Going Mitigation Strategy Programs.....	12
INCORPORATION INTO EXISTING PLANNING MECHANISMS.....	13
PLAN UPDATE PROCESS	13
MITIGATION PLAN POINT OF CONTACT	14
EXHIBIT A – JURISDICTION BOUNDARY MAP.....	15
EXHIBIT B - PUBLIC MEETING ANNOUNCEMENTS	16

INTRODUCTION

The Santa Clara Valley Water District (District) is a special District that provides wholesale water supply, flood control and environmental stewardship of 800 miles of rivers and streams for Santa Clara County, California. It employs approximately 750 people. Formed in 1929 by an act of the State Legislature as the Santa Clara Valley Water Conservation District, the agency later incorporated flood control and environmental stewardship into its charter to give it a unique mission among California special Districts. The District is the largest dual purpose water and flood management special District in California. Santa Clara County is located at the south end of San Francisco Bay. The District encompasses all of the Santa Clara County that includes the area's 15 cities, 1,781,642 residents (2010 U.S. census data). Located in the county is the city of San Jose, the nation's 10th largest city.

The core mission of the District is to provide:

- **A Clean and Reliable Supply of Water**

To accomplish this, the District manages, captures, and stores local surface water in its reservoirs, recharges the groundwater basin and imports water from the Sacramento/San Joaquin Delta. Water is first treated at District facilities and is then sold and distributed through pipelines to municipal and investor-owned water retailers for sale to County residents and businesses. Private well owners and water retailers rely on the groundwater pumped from the groundwater sub-basin for mitigating the effects from a drought.

- **Protection from Flooding**

The District works to protect residents and business from the devastating effects of flooding. Flood protection is provided through construction and maintenance of capital projects such as channels and levees. In recent years, District started to integrate habitat protection or enhancement and recreation opportunities into flood protection projects. The District also performs sediment removal, bank protection and vegetation management of its flood protection facilities throughout the County, provides field responses (including clearing of hot spots to prevent flooding) during storm events and conducts inspections after storm events.

- **Environmental Stewardship**

The District serves as a steward for the County's 800 miles of streams and creeks, its groundwater basins, and District-owned reservoirs. The District uses best management practices, and collaborations or partnerships with others to be environmentally sensitive in how it plans and conducts its work. It also strives to be a "Good Neighbor" by minimizing the unavoidable disruption to neighborhoods and residents caused by District work, and integrate habitat protection into its capital and maintenance projects. In addition, the District works with local jurisdictions to make available reservoirs, trails, and open space for public use and enjoyment.

The District serves 13 public and private retail water providers. More than half the County's water supply comes from underground aquifers recharged through an extensive District ground water recharge system. The District operates and maintain

three water treatment plants, eleven dams and reservoirs (including the Federal Energy Regulatory Commission-regulated Anderson Dam, and the Rinconada Reservoir) and the San Felipe Division of the Central Valley Water Project, which includes the Pacheco Pumping Plant, Pacheco Conduit (which includes the Pacheco Tunnel), Santa Clara Conduit (which includes the Santa Clara Tunnel and Calaveras Fault Crossing), and the Coyote Pumping Plant. A short portion of the Santa Clara Conduit passes through the San Benito County.

THE REGIONAL PLANNING PROCESS

The regional planning effort was led by the Association of Bay Area Governments (ABAG) whose process included workshops, conferences, and meetings (e.g. teleconferences). The District participated in multiple Association Bay Area Government (ABAG) activities to foster the development and update of the LHMP. Participation is reflected below:

- Flooding workshop (2) – July 7, 2009
- Lifeline & Hazards Review Committee (7) – May 6, 2009; Sept. 2, 2009; Oct. 7, 2009; Dec. 8, 2009
- Water workshop (3) – March 25, 2009

Input was provided by the District during the meetings on various ABAG services, specifically its development of new strategies and that of updates to historical strategy language. Primary subject matter expertise provided was that relating to Dams, Reservoirs, and water utility infrastructure.

For more information on these meetings and for rosters of attendees, please see Appendix A and H in the ABAG Multi-Jurisdictional Local Hazard Mitigation Plan 2010 (MJ-LHMP). The District has provided written and oral comments on the multi-jurisdictional plan and provided information on facilities that are defined as “critical” to ABAG.

THE LOCAL PLANNING PROCESS

The District practices continual updates of the all-hazards approach to emergency response. This includes continuing compliance activities for the California Standardized Emergency Management System (SEMS) – National Incident Management System (NIMS) and Incident Command System (ICS). This plan is based on the review of existing programs and the identification of disaster vulnerabilities. The overall goal of the plan is to address identified risks through mitigation.

The District participated in various ABAG workshops and meetings including the Lifeline and Hazard Review Committee. In addition, the District has provided written and oral comments on the multi-jurisdictional plan and provided information on critical facilities to ABAG. In 2010, a newly developed FEMA Annex template was provided by ABAG, the lead coordinating agency, to develop and author this document.

Key District staff met on several occasions to identify and prioritize mitigation strategies appropriate for the District. Staff involved in these meetings for preparation of this annex

included staff from the Office of Emergency Services (OES had lead role), the Office of Watershed Planning, Watershed Business Management Unit, Water Quality Unit, Infrastructure Planning Unit, Water Utilities Treated Water Operations Unit and others as indicated in the ownership column of the mitigation strategies excel workbook. At the outset of the 2010 LHMP update process, OES coordinated the plan's update and formal meetings with discrete mitigation strategy owners or planning team. The planning team is comprised of team members from other District planning efforts (e.g. Infrastructure Reliability Plan) whose mitigation activities have been incorporated with the LHMP. The effort to update mitigation strategies was accomplished by; formal meetings with owners as aforementioned; email; phone and phone discussions. ABAG meetings were used as opportunities to meet with internal team members and address questions from subject matter expert team members.

The District also participates in the County's quarterly Emergency Preparedness Council (EPC) meeting. The District is a critical disaster planning partner with the cities and the county in the Santa Clara County Operational Area. As a member of the EPC, the District:

- Provides expertise in disaster scenarios involving dam inundation, levee failure, flooding, fire suppression, and potable water distribution
- Informs elected leaders on a regular basis on efforts to prepare, respond and recover in the event that water resources are threatened
- Contributes to shaping State and Federal Policy affecting emergency preparedness in Santa Clara County through lobbying resources

The resolution for adopting the plan and acknowledging these strategies will be sent to the Board of Directors agenda for consideration and approval.

Process for Updating Plan Sections

The District participated in the 2005 multi-jurisdictional Local Hazard Mitigation Plan, and this Annex is an update of the Annex prepared for the 2005 plan. The lead in updating this Annex was taken by OES staff who collected feedback obtained from the staff who participated in the mitigation priority setting process.

OES staff member accomplished a complete review of the Annex to evaluate sections that needed subject matter experts (SME) review of the information contained within the annex completed four years ago. The SME's provided specific input on sections pertaining to their expertise. The plan will be monitored over the next five years to ensure the plan maintains alignment and coordination with other internal plans.

The Hazard and Risk Assessment section has been updated to incorporate the new mapping compiled by ABAG for the overall multi-jurisdictional Local Hazard Mitigation Plan. The specific information on the District has also been updated to reflect additional engineering studies and mitigation activities that have occurred in the past five years, including seismic studies.

The Mitigation Goals and Priorities section has been expanded to take a more comprehensive approach to mitigation.

Review and Incorporation of Existing Information

This process involved consideration of both the hazard and risk information developed by ABAG and discussed in the overall multi-jurisdictional Local Hazard Mitigation Plan, as well as the assessments of the type of structures owned by the District and described under Infrastructure Exposure within this annex. Moving forward, meetings will be held formally to discuss the Capital Improvement Plan already in place at the District, the LHMP, and how well these plans could be best fully integrated.

As outlined above, subject matter experts were contacted to provide comment on the existing plan. Their comments were captured in Mitigation Activities and on-going Mitigation Activities portion of this Annex. The following plans were referenced in the development of this annex.

PLAN / PROGRAM / STUDY/REPORT	LINKAGE TO DISTRICT'S LHMP ANNEX
Infrastructure Reliability Program	This program provides information on the Districts' reliability of its water supply infrastructure (pipes, pump stations, treatment plants).
Integrated Water Resources Planning (IWRP)	The IWRP process is used to make water supply investment decisions under a variety of different risk scenarios. The framework is designed to identify and actively manage risk and uncertainty so that the risk of the future water supply falling short of the actual water demand is reduced.
Capital Improvement Program	This was used in 2005 to determine whether projects were currently viable or would need to be deferred due to lack of funding
Stream Maintenance Program (SMP)	An element of this program is to regularly maintain modified channels to conveyance design capacity as part of the SMP. Mitigation of a potential flood hazard is the component of value obtained via this program.
District's Strategic Plan 2009-2014	Key issue within the strategic plan is Assets Managed with associated goal to Prepare for Continuity of Service During Disruptions

Public Meetings

Opportunity for public comments on the draft mitigation strategies was provided at a public meeting on February 17th, 2010, 6:30PM, at the Santa Clara Valley Water District's board room. In addition, this opportunity was advertised in the San Jose Mercury News on February 3rd and

again on February 10th, 2010. Furthermore, the website at <http://www.valleywater.org/programs/LHMP.aspx> is Santa Clara Valley Water District's location where members of the community can gain further information on the LHMP. The current mitigation strategies are readily available by calling the contact listed in the website.

The District is committed to improving public participation when this plan is updated in five years. To improve this process, The District will consider writing letters to the editor of local newspapers in its service area to promote wider public knowledge of the process, or may consider working with local business and advocacy groups to conduct joint meetings to promote greater awareness of these issues.

The District Board will adopt the plan in a public meeting via an official Resolution upon approval by FEMA. The mitigation strategies will become an implementation appendix of the plan.

PAST OCCURENCES OF DISASTERS (NATURAL AND HUMAN INDUCED)

As the County's water supply and flood control agency, the District has experienced a number of different natural hazard incidents over the years, including earthquakes, floods, winter storms, and broken pipelines.

The Loma Prieta Earthquake of (1989) is an example of the kind of large scale disaster that can strike the Bay Area. The District is located just a few miles from the Loma Prieta epicenter. The earthquake killed 63 persons, injured 3,757, and displaced over 12,000 persons. With over 20,000 homes and businesses damaged and over 1,100 destroyed, this quake caused approximately \$6 Billion of damage. Reconstruction continues some two decades later as the replacement for Oakland-Bay Bridge is still several years from completion.

More information on State and Federally declared disasters in the District jurisdiction can be found at <http://quake.abag.ca.gov/?s=santa+clara+county>

Local significant incidents that have impacted the District in recent years include:

- **Winter Storms; November-January 1982-83, November 1983, January 1986, December 2005, February 2006, October 2009, January 2010;** Heavy rains and local flooding during these storm events caused local municipal infrastructure damages; including levees, and localized channel erosion damages.
- **June 2, 2004 San Joaquin Levee Break (Upper Jones Track)** – The incident caused the amount of water the District received from the delta to be reduced by approximately 50%. This impact required the District to rely on its water portfolio consisting of various sources (e.g. valley aquifer, ten reservoir/dams)
- **April 2001, June 2008, July 2009 – Treated Water Distribution Pipeline (42 inch – 72 inch) Leak Events** – The leaks were not due to a natural hazard but to Contractor error and or infrastructure deterioration. Services to the public were curtailed but boil water notices not issued.

- **October 2007 – 5.6 Earthquake – Calaveras Fault** – Dam inspections were accomplished by District Post Earthquake Dam Assessment team. No major issues report. No impact to key infrastructure and none to core services.
- **May 2002 – 5.2 Earthquake – Calaveras Fault**, a sharp and short earthquake felt throughout the Bay Area. Epicenter three miles southwest of Gilroy, 5.2 on the Richter scale. Subtle cracking at the Uvas dam found. However, core services for the District were not disrupted.
- **October 1989 – 7.1 Earthquake – Loma Prieta**, major damage was done to the Rinconada Water Treatment Plant (clarifiers) a critical infrastructure asset with a production level of 80 mgd. For a period of five months plant production was limited to 24 mgd while emergency repairs were made. Raw Water Transmission and Treated Water Distribution Pipelines suffered failures of air relief valves due to lack of bracing.

RISK/HAZARDS ASSESSMENT

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that affect the Bay Area: five related to earthquakes (faulting, shaking, earthquake induced landslides, liquefaction and tsunamis) and four related to weather (flooding, landslides, wildfires and drought). Because the District service area is the same as the political boundaries of Santa Clara County which encompasses a broad geographic/geological/climatic area, the hazards that affect the County are also of concern to the District. Identification of these common hazards was achieved during the June 2010 Santa Clara County Hazard Mitigation Plan Update meeting. The hazards identified were; EQ-ground shaking, infrastructure failure, EQ-liquefaction, Delta Levee Failure, Wildfire, EQ-Surface Rupture, and EQ-Landslides.

The District has undertaken a number of general hazard mapping activities. General public inquiries are referred to the ABAG website at <http://quake.abag.ca.gov/mitigation/>. Information on disasters declared in Santa Clara County is at <http://quake.abag.ca.gov/wp-content/documents/ThePlan-D-2010.pdf>.

Infrastructure Exposure

Based on information obtained from the California Geological Survey, FEMA, ABAG and 2004 District Water Infrastructure Reliability Project (IRP), the Number of Critical District Facilities Susceptible to various hazards are as follows:

- **Earthquake Faulting Potential** – According to the CGS Alquist-Priolo Earthquake Fault Zone information, District pipelines cross a number of faults, including the Calaveras, Shannon-Monte Vista, and Warm Springs fault zones. Portions of the District Coyote and Anderson Dams are also susceptible to faulting potential on either the Calaveras or Silver Creek Fault zones.
- **Earthquake Shaking Potential** – All of the District facilities are susceptible to a moderate to strong category of ground shaking potential, due to the close

proximity of the San Andreas, Sargent, Berocal, Monte Vista–Shannon, Coyote Creek, Silver Creek, Warm Springs, Hayward, or Calaveras faults.

- **Earthquake Liquefaction Susceptibility** – The majority of Santa Clara Valley is not susceptible to liquefaction. The areas of higher liquefaction susceptibility includes District pipelines located in the extreme northwest area of the county adjacent to the southern end of the San Francisco Bay, and certain areas adjacent to the east side of the valley floor extending northwestward from the San Benito County line to the east-west margin of higher liquefaction potential described above. In addition, District pipelines are susceptible to liquefaction at many creek crossings. Detailed seismic stability assessments are currently being performed on six District dams (Almaden, Anderson, Calero and Guadalupe, and Lenihan and Stevens Creek) which will also address liquefaction potential in the dam foundations; similar analyses may be performed for other District dams in the near future.
- **Earthquake Dam Seismic Stability** - A detailed seismic stability assessment for Anderson Dam has shown that the dam is seismically deficient, with planning to address that issue initiated. Seismic stability assessments for seven other District dams are underway for completion by 2014.
- **Earthquake-induced landslides** – A number of District pipelines, including the Almaden Valley, Calero, Cross Valley, and Snell Pipelines, in the more mountainous portions of the county are located in earthquake-induced landslide zones. The Penitencia Water Treatment Plant is also located in an earthquake induced landslide zone situated in the east foothills or northeast part of the county. The pipes to/from the Penitencia Water Treatment Plant, including the South Bay Aqueduct, are susceptible to damage by accelerated movement of the Penitencia Creek Landslide, which can be “activated” for sudden greater movement due to earthquake combined with ground saturation due to rainfall. Anderson and Coyote Dams, and the Pacheco and Santa Clara Conduits are also in high risk areas for earthquake-induced landslides.
- **Flooding and effects of flooding** – A number of District pipelines are partially located in flood zones and are subject to damage by erosion or inundation.
- **Wildfire Threat Areas** -- All critical District reservoirs (Almaden, Guadalupe, Calero, Anderson, Coyote, Uvas, Chesboro, Stevens Creek, Lexington) are at least partially surrounded by very high fuel areas, based on California Department of Forestry maps that rank fire fuel risk by moderate, high, and very high. The Penitencia and Santa Teresa Water Treatment Plants are located adjacent to high risk fuel areas. Many other District facilities are located in moderate risk areas.
- **Wildland-Urban Interface Fire Threat** – 13 District facilities.
- **Drought** – Of the 139 miles of pipeline operated by the District, none are subject to damage due to drought. The District maintains in-ground water storage, above-ground storage in reservoirs and imports water through State and Federal water projects.

To delineate where potential damages might occur the District staff reviewed and will continue to review various ABAG regional hazard maps and its updates at <http://quake.abag.ca.gov/mitigation/> and <http://www.abag.ca.gov/cgi-bin/pickmapx.pl> (Loma Prieta map).

Urban Land Exposure

Santa Clara County has examined the hazard exposure of urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Except where noted elsewhere in this document, all hazard exposures and all information pertinent to the County are the same for the District and may be found at <http://quake.abag.ca.gov/mitigation/landuse/>.

Repetitive Loss Properties

A number of District facilities located on the floor of Santa Clara Valley are located in flood-prone areas. Information on repetitive loss properties in the County per <http://quake.abag.ca.gov/mitigation/pickflood.html> indicates that there are 27 repetitive loss properties responsible for 67 claims totaling \$869,596. Four of the 27 properties are located outside the mapped flood plain (2004). As of December 2010, this information is still the latest per ABAG'S site.

Other: Assessments, Projects, Plans

Water System Security Vulnerability Assessment (September 2002) -- This report includes an assessment and recommendations regarding internal policies and procedures to facilitate protection of the District against insider threats. The report examines such things as security policies and procedures; access control and security protocols; mailroom and package receiving policies and procedures; human resources; security guard force operations; emergency response & business continuity; and performed an overall threat assessment.

Water Infrastructure Reliability Project (May 2005) – This study included reconnaissance-level evaluation of retail water systems supplied by the District water system. The report describes water retailer systems and how they interact with the District water supply system, hazards to which systems are exposed, systems' responses to hazards, and a multi-tiered retrofit program to reduce risk. The final report includes numerous detailed maps showing earthquake vulnerabilities, along with detailed vulnerability study results. The goal this effort included an overall facilities assessment and reliability response evaluation and a system-wide water infrastructure reliability plan. The plan proposes improvements and modifications to improve performance after a major event (infrastructure as well as planning/procedures, etc.) and includes District water storage, transmission, pumping, treatment and distribution facilities. (This includes portions of the U.S. Bureau of Reclamation San Felipe Project which the District operates.) The County's other imported water supplies are evaluated at a reconnaissance-level to assess their respective impact on the District's system ability to supply and deliver water to its customers. (This includes the California Department of Water Resources South Bay Aqueduct,

San Francisco Public Utilities Commission and District retailer systems). The project also includes prioritization of regional solutions for improving District systems reliability.

Facility Vulnerability Assessment (August 2003) – Although primarily focused on facilities and employee security and safety, this study addresses issues raised by the Infrastructure Mitigation Strategies (and other categories and items) regarding assessment of the vulnerability of critical facilities to damage in natural disasters and security threats as designated by “lifeline operators” in this case the District. The study provides facility risk prioritization based on criticality to District mission success, consequences of loss of those facilities and symbolic attractiveness of facilities as targets of malevolent acts (including terrorism).

Emergency Operations Plan – The EOP is intended to be the standard format for all District emergency plans. It is an ISO standard quality document (Q830DO3) recently updated on October 01, 2010. Its core consists of the following sections; Concept of Operations; Emergency Management Organizations; SEMS/NIMS structure including the Incident Command System (ICS) to which the District is in compliance per the NIMSCAST scorecard; Situation Analysis; Emergency Response Framework; Annex A Hazard Analysis; and Annex B that provides general actions as guidelines to response to various hazards.

The District plans to work with Association of Bay Area Governments (ABAG) to develop specific information about the kind and level of damage to District buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The reviews of the information available revealed that earthquake (particularly shaking), flooding, wildfire, and landslides (including unstable earth) could pose significant risk for potential losses in these District facilities. The District will continue to review the hazards identified and update the priorities accordingly.

Hazards Conclusion

The District has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking), flooding, and wildfires pose a significant risk for potential loss. This conclusion was based on the hazard exposure information for the District’s facilities, as well as past occurrences of disasters impacting the District’s service area described in the following section.

NATIONAL FLOOD INSURANCE PROGRAM

As a special District, the District is not eligible to participate in the National Flood Insurance Program

MITIGATION GOALS AND OBJECTIVES

The goal of the ABAG Multi Jurisdictional Local Hazard Mitigation Program (MJ-LHMP) is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating

economic recovery from those disasters. This goal is unchanged from the 2005 plan and continues to be the goal of the DISTRICT in developing its mitigation program.

MITIGATION ACTIVITIES AND PRIORITIES

Over time, the District is committed to developing better hazard and risk information to use in making necessary trade-offs on an on-going basis. While the District cannot create a disaster - proof region, it does and will continue to contribute to improving Disaster - resistance in the areas it serves. The District LHMP identified approximately seventy strategies and over twenty-five very high and high priority mitigation strategies that can use funding.

The District will use established and proven mechanisms to continue to support existing mitigation strategies identified and pursue funding, when prioritized, for strategies having very high or high priorities in this Annex. The principal means for project approval and implementation are the District's Capital Improvement Plan (CIP) and annual budget. The CIP is an annual, comprehensive review of asset investments required over a 10-year period to ensure adequate water resources, maintain clean, safe water and meet the present and future needs of District customers. The vulnerability of key assets to natural disasters identified in this annex will be considered in future asset investments strategies.

In addition, as the District assesses infrastructure needs through the asset management planning, performance audits or other efforts, additional high or very high priority mitigation strategies may emerge and trigger the need for funding request.

Evaluation of Progress From 2005 Plan

In 2005 (Annex accomplished in 2007), mitigation actions and priorities were identified. The attached list from the excel workbook submitted to ABAG reflects each of the strategies identified, along with the responsible owner, action taken, and current status of progress. Below are some of the priorities with the progress accomplished since 2007.

- (INFRA a-1) The infrastructure reliability report was completed. The portfolio 2 of the Infrastructure Reliability Program is being implemented at a cost of \$274Million.
- (INFRA a-5) A partnership formed with FEMA to produce risk-based flood maps for communication and hazard mitigation planning.
- (INFRA a-6) Spare pipe project has been completed (March 2008).
- (INFRA a- 21) A functional alternate Emergency Operating Center (EOC) has been deployed including supporting equipment.
- (INFRA d-12) Levee inspection and repair program to ensure safety.
- (ENVI a-9) Implementation of the Facility Compliance Program to ensure operations meets State of California Certified Unified Program Agency (CUPA) requirements.

Future Mitigation Actions and Priorities

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of District helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria included being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. The District's priorities are driven by its 2009-2014 Strategic Plan and subsequently by its programs, plans, and studies some of which are reflected by the table above under the section Review of Plans and Programs. Within each of these efforts, prioritization is accomplished to commensurate with the jurisdiction's budget. These are reflected as mitigation activities in the LHMP mitigation strategies excel workbook.

The priorities were drafted by the team identified in the Local Planning Process section of this annex, and are a reflection of District management's decision making process. The priorities will be provided to the District Board for adoption consideration. This annex and strategies (Excel workbook) will have already met the FEMA approval before going to our District Board. This is the standard process for all agencies to follow and gain LHMP approval.

The District also prioritized specific mitigation tasks for the upcoming years. This list just below includes the following elements: implementation process, funding strategy, responsible agency, and approximate time frame.

- (INFRA a-2) - Hazards addressed: EQ, LS, WF, FL, SEC

The goal is to accomplish seismic stability evaluation for four dams by December 2013. The owner of this activity is the Dam Safety Program Unit. Seismic stability evaluation studies on six dams are in progress, with studies for the last two dams currently contemplated budgeted to begin in FY2012. Studies on all eight dams currently identified as needing studies will be completed by December 2013. Based upon the results, planning, design and construction projects to address seismic retrofits will be initiated to address them when the studies are completed and the results available. The results on the Anderson Dam seismic stability evaluation showed the dam with inadequate seismic stability. As a result, the capital projects to address planning, design and construction for that dam retrofit have already begun. Funding for the studies and funding for the currently identified components of the Anderson Dam seismic retrofit stems from the respective District operations and capital budgets, and are primarily funded by water rates. As the seismic retrofit projects emerge, funding strategies for those projects will be developed. The District will be looking for grant funding as it moves forward. The District will be responsible for all of this work. Completion of planning, design and construction of the Anderson Dam seismic retrofit project is projected to be by 2018, with the schedule to be refined as planning moves forward. Schedules for other seismic retrofits will be developed after planning for those efforts has begun.

- (INFRA f-1) - Hazards addressed: EQ, LS, WF, FL, SEC

To identify owner for a formal Building Assessment program to be budgeted and developed. Currently the Facilities Unit and the Office of Emergency Services are coordinating this effort to seek funding and identify the project owner. The organizational budget process for FY2013 begins in September, 2011 where the opportunity to formalize this need is expected to be brought into budget discussions.

Budget constraints have reduced the amount of funds committed to expand on strategies. However, key strategies that are ongoing continue to receive funding for mitigation activities as reflected in the following section.

On-Going Mitigation Strategy Programs

The District has many on-going mitigation programs that help create a more disaster-resistant operating area. The following list highlights those programs identified as *Existing Programs* in the mitigation strategy spreadsheet. Others are on-going programs that are currently underfunded. It is the District's intent to consider these for future funding to best sustain these on-going programs.

- Water Infrastructure Reliability Project. Portfolio 2 being implemented - \$274 million cost (INFRA a-1) (Water Utility Planning)
- Seismic Stability Evaluation – Cost estimated at \$6 million (INFRA a-2) (Dam Safety Program Unit)
- Dam Safety Program (GOVT-a-8) (Dam Safety Program Unit)
- Participants in the SVRIP (GOVT-c-7).(Information Technology Unit)
- Bay Area Security Information Collaborative (BASIC).(INFRA a-3) (Electrical & Control Systems Unit)
- Participation in FEMA's National Flood Insurance Program by bringing FEMA and DWR classes to local city/county staff to increase awareness. (GOVT-d-5) (Watershed Stewardship Planning)
- Dam Safety Program (INFRA B-5) (Dam Safety Program Unit)
- Supports the Delta-Mendota levee project and efforts of DWR to improve the South Bay Aqueduct. (INFRA A-5) (Watershed Stewardship Planning)
- Have a Delta Policy to address the concern over the Sacramento-San Joaquin Delta. (INFRA a-22/new) (Water Supply Division)
- Stream Maintenance Program (INFRA d-6) (Field Operations Unit)
- Participation as co-permittee in the Santa Clara Valley Pollution Prevention Program (INFRA d-8) (Community Projects Review Unit)

- Provides technical assistance in efforts such as the Community Rating System and Levee recertification. (INFRA d-16) (Office of Watershed Planning)
- Flood plain mailer is distributed to approximately 100,000 homes. (INFRA G-7) (District Communications Unit)

INCORPORATION INTO EXISTING PLANNING MECHANISMS

The District has, and will continue to use, a variety of project-specific mechanisms to ensure that the projects and mitigation strategies identified as existing or having relatively high priorities in this LHMP Annex are implemented. This organization is not a land use agency, thus does not have a general plan. This annex will be made available to the County of Santa Clara and cities in Santa Clara County for their use as necessary.

The information in this Annex including the goals, objectives, and strategies identified, will be made available to District capital improvement plan owners as reference for prioritizing capital improvements of District infrastructure. The distribution to capital improvement will be designated to owners identified in the LHMP strategies excel workbook with the goal of further integrating the LHMP elements with capital mitigation activities (strategies) into the Capital Improvements Plan and Budget process.

The District will continue to enforce State-mandated requirements, such as the *California Environmental Quality Act*, to ensure that mitigation activities for hazards, such as seismic retrofits and vegetation clearance programs for fire threat, are conducted in a way that reduces environmental degradation such as air quality impacts, noise during construction, and loss of sensitive habitats and species, while respecting the community value of historic preservation.

Following adoption by FEMA, the final strategies and Annex will be adopted by the District in the same resolution adopting the overall LHMP

Ongoing integration of the policies and programs identified in this Local Hazard Mitigation Plan will occur at the District under the direction of the General Manager.

PLAN UPDATE PROCESS

The District is committed to updating the Annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Office of Emergency Services (OES) plans to identify a process for monitoring the local plan during the intervening years and is responsible for updating the information in this Annex. It will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, this District again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted. Other agencies will then work together to identify another regional forum for developing a multi-jurisdictional plan.

The public will continue to be involved when the plan is updated again. The opportunity for the public to comment in this cycle was provided in two forms. The first was published in the local San Jose Mercury News. The second is available ongoing at the following link

<http://www.valleywater.org/programs/LHMP.aspx> .The programs, projects, studies and reports in the process of preparing this Annex were all provided to the public via a process which solicited public input through the use of newspaper, public meetings, and the aforementioned website. It's anticipated that this same process or an iteration will be used in the next update.

The District's master plans and studies are typically updated on a five-year cycle and contain much of the information that forms the basis of this Annex. The public will continue to be involved whenever the source documents or this Annex is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, CCWD will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics. To increase public participation in developing this Annex in the future, CCWD will consider the use of internet forums to make the public aware of the Annex update.

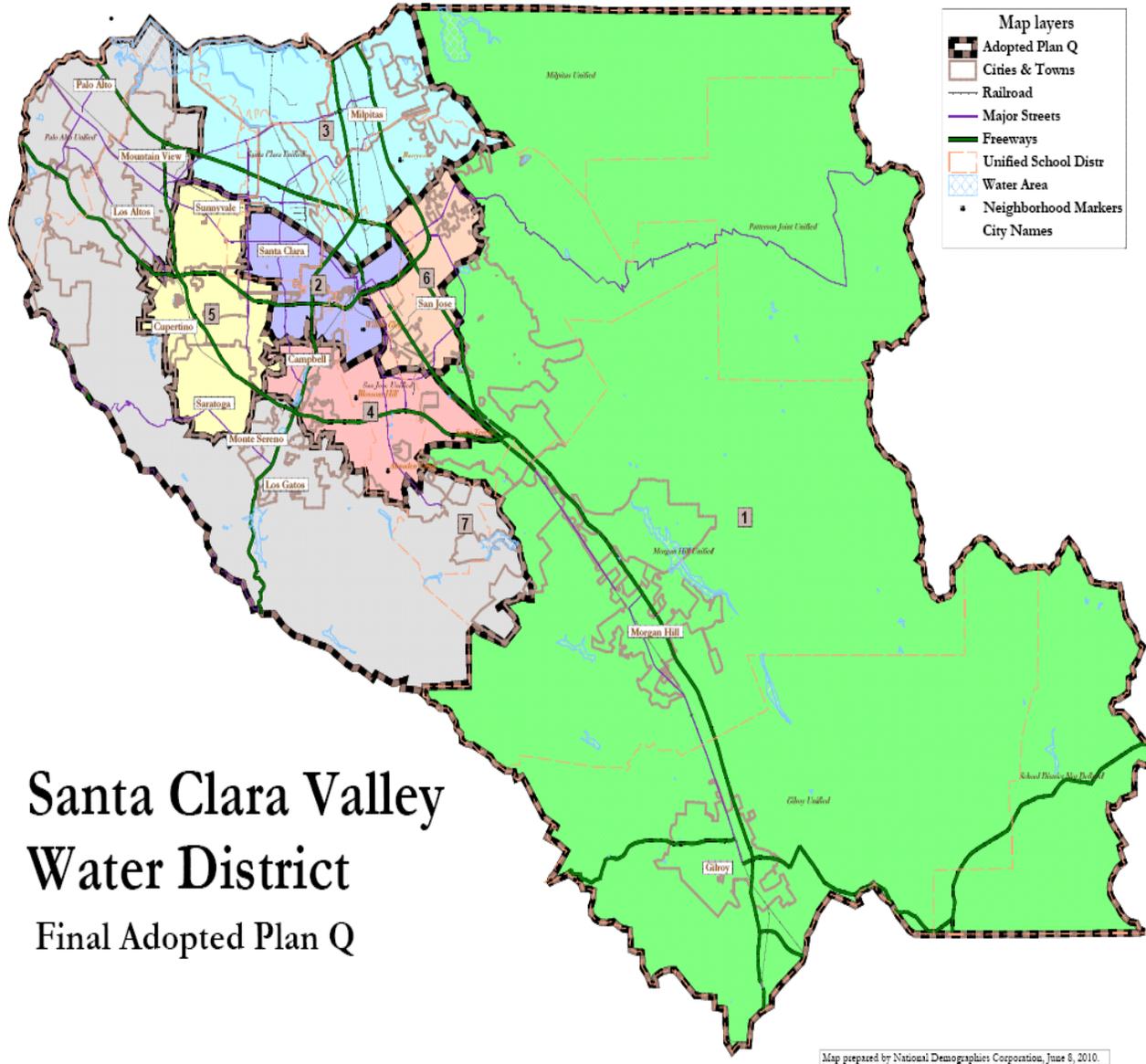
MITIGATION PLAN POINT OF CONTACT

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EXHIBIT A – JURISDICTION BOUNDARY MAP



Santa Clara Valley Water District Final Adopted Plan Q

Map prepared by National Demographics Corporation, June 8, 2010.

EXHIBIT B - PUBLIC MEETING ANNOUNCEMENTS

 Santa Clara Valley Water District
Open house

Local Hazard Mitigation Program

What: Reduction of Impact from Local Natural Hazards (e.g. earthquake, flood)

- Program mitigation approaches
- Evaluation and prioritization of hazards
- Current actions to reduce impact on core business

Who: Santa Clara Valley Water District
Office of Emergency Management

What: Open House

When: February 17, 2010, 6:30 - 8:00 p.m.

Where: Santa Clara Valley Water District Board Room
5700 Almaden Expressway, San Jose, CA

Why: Please join the water district for an opportunity to comment on the water district's Local Hazard Mitigation Program annex during the current drafting stage and before Federal Emergency Management Agency (FEMA) approval.

Upon FEMA approval, the plan subsequently goes to the water district Board for consideration and adoption. The agenda will be a short PowerPoint presentation on the program, followed by a question and answer session.

You will have an opportunity to review the hazard mitigation activities implemented by the water district. Staff will collect your suggestions or comments.

Reasonable efforts will be made to accommodate persons with disabilities wishing to attend this open house. For additional information regarding this meeting, including requesting accommodations for disabilities or interpreter assistance (3 days prior), please call the Office of Emergency Management at (408) 265-2607, ext. 3172.

Santa Clara Valley Water District 

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