

DUBLIN
SAN RAMON
SERVICES
DISTRICT



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

**Dublin San Ramon Services
District**



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Introduction

Dublin San Ramon Services District (DSRSD) is a Special District chartered by the state of California to provide water and wastewater services within its service area. DSRSD's service area is made up of the city of Dublin, some of the southern section of the city of San Ramon and the Dougherty Valley area within the city of San Ramon. In addition, DSRSD's Wastewater Treatment Plant (WWTP) and its Dedicated Land Disposal facility (DLD) is within the city limits of the city of Pleasanton. DSRSD serves approximately 63,800 people directly with water and wastewater services. In addition, DSRSD serves approximately 50,000 people in the city of Pleasanton with wastewater treatment processing at the WWTP. DSRSD's direct service area contains approximately 27.5 square miles and covers parts of Alameda and Contra Costa counties.

DSRSD owns and operates 14 water reservoirs, 15 water pump stations, 286 miles of potable water mains, 55 miles of recycled water mains, and 295 miles of sanitary sewer mains. Its administrative offices occupy approximately 23,000 square feet of offices at the District Office at 7051 Dublin Blvd in Dublin. In addition, DSRSD has a Field Office of approximately 6,000 square feet at 4th and Evans on the grounds of Camp Parks Reserve Force Training Area. DSRSD's WWTP includes buildings of approximately 53,000 square feet at 7399 Johnson Drive in Pleasanton. A map of DSRSD's major infrastructure and primary buildings is included as Exhibit A.

DSRSD's operating budget for the Fiscal Year ending in 2011 is \$46,345,093. The budget is set each year by the governing Board of Directors. DSRSD currently has 105 employees on its payroll.

DSRSD was only moderately affected by the Loma Prieta earthquake of 1989. Fortunately, DSRSD has avoided other serious disasters since its founding in 1953 as the Valley Community Services District. The natural disasters that most frequently affect DSRSD are the periodic droughts that impact California. DSRSD's Board of Directors has implemented the *Tri-Valley Water Retailers Water Shortage Contingency Plan*, most recently updated in March 2009, to enable the District to withstand the reduction in available potable water in the event of droughts.

The Regional Planning Process

DSRSD participated in various ABAG workshops, conferences and meetings to prepare the Local Hazard Mitigation Plan, including



- One of the County/City Workshops
- Contribution of wording for the chapters
- Correlation of DSRSD's Strategic Plan with the strategic goals of regional hazard assessment and recovery planning.
- Benefits of the practical experience of DSRSD's Safety Officer who brought 17 years of safety experience with practical application to the regional planning process.

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). In addition, DSRSD 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

Planning the response to potential natural hazards is a function of DSRSD's Senior Management Committee. By direction of the General Manager, this committee meets weekly and is made up of the General Manager, the District Engineer, the Financial Services Manager, the Operations Manager and the Organizational Services Manager. This management team has the responsibility to anticipate likely natural disasters in our region and to plan DSRSD's response to those events. At least annually the Senior Management Committee reviews the District Safety Officer's response plans to potential natural disasters.

The implementation arm of the Senior Management Committee is the Full Management Committee which meets monthly. This committee is made up of all the Senior Managers and all the mid-level managers of the District. The Full Management Committee makes individual staff assignments for drawing up or revising needed Mitigation Plans, ensures collaboration between different Divisions in DSRSD's staff roster, sets deadlines and reviews the Mitigation Plan presentations and recommendations.

The Full Management Committee meets at least once annually to discuss potential disaster scenarios and to identify and prioritize appropriate mitigation strategies. By intention, the Personnel involved in these meetings includes not only senior management; but also the relevant staff from the Engineering, Operations and Financial Services, Organization Services and Executive Departments. Thus, this group is made up of planners, facility managers, civil engineers, public health specialists, emergency managers, operations staff, and financial specialists. It reviews the overall DSRSD response planning and maintains up-to-date response plans for specific natural emergencies. The Full Management Committee also directs and monitors District participation in regional disaster drills.

The District's Safety Officer presented a report on the District's participation in ABAG's Local Hazard Mitigation Planning effort at the Full Management Committee. After that meeting



general priorities were identified. Subsequent meetings identified mitigation strategies, prioritized said strategies, and reviewed preliminary budgets and potential funding sources for strategies designated adopted for District-owned-and-operated facilities.

Review and Incorporation of Existing Information

The existing studies, reports or plans shown below provided information which informed the development of this annex.

Existing plans, studies, reports, and technical information	Method of incorporation into the jurisdiction annex
DSRSD Strategic Plan	Prioritization of Essential Services
Water Master Plan Update – 2005	ID of Critical Infrastructure, Resource Documentation, Mitigation Strategies
Wastewater Collection System Update - 2005	ID of Critical Infrastructure, Resource Documentation, Mitigation Strategies
CIP Budget 2010-2011	ID of Available Assets, Schedule of Planning Reports

Process of Updating Plan Sections

DSRSD did not participate in the 2005 LHMP and this annex is not an update.

Public Meetings

Opportunity for public comments on the draft mitigation strategies was provided at a public meeting at Dublin San Ramon Services District’s Board Room on Monday, September 28, 2009 and advertised on the DSRSD website. The draft mitigation strategies were also published on the DSRSD website for public viewing. No public comments were received from either the meeting or the internet posting. A copy of the internet postings are included as Exhibit B to the DSRSD 2010 Annex.

The District’s Board of Directors 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 section on Security of District Facilities in the DSRSD Strategic Plan.



Hazards Assessment

The ABAG Multi-Jurisdictional Local Hazard Mitigation Plan, to which this is an annex, lists nine hazards that impact 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). Maps of these hazards and risks are shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

DSRSD has reviewed the hazards identified and ranked the hazards to its facilities and operations based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking) pose the most serious risk for potential loss to DSRSD. The second disaster scenario that poses the most serious risk for potential loss is that of weather-related events; especially droughts. To a small extent flooding due to weather events poses some risk to DSRSD with the potential to interrupt operation of DSRSD's wastewater treatment plant. To a small extent, DSRSD also faces a serious risk due to human-caused disasters from sabotage in its water infrastructure. This rank order of possible natural disasters was done by the Planning Division of the Engineering Department after a review of the hazard and risk maps and other information provided by the ABAG website. The list of possible hazards was reviewed by the District's Full Management Committee in November 2010.

DSRSD does not face any natural disasters not listed in the ABAG multi-jurisdictional plan and no new hazards have been identified by DSRSD since the original development of this plan in 2005.

While DSRSD has undertaken a number of planning activities for mitigation of general and various hazards since the first Safety Element was prepared by ABAG, it has not yet produced any maps that are more detailed than those now current on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

Past Occurrences of Disasters (natural and human-induced)

Dublin San Ramon Services District is a Special District providing water and wastewater services chartered by the state of California in 1953. Prior to 1953, our service area was primarily a sparsely populated rural area and disasters had little impact. Since the inception of DSRSD, it has experienced a number of different disasters including earthquakes, floods, droughts, energy shortages and severe storms. The most frequent and most recent disaster impacting DSRSD is drought. DSRSD was impacted by the drought of 2007-09. Since drought is a periodic problem faced by DSRSD, DSRSD has done a considerable amount of planning to mitigate the effects of drought. DSRSD's mitigation efforts were initiated by our Board of Directors and have resulted in various water conservation initiatives that have reduced the



overall water demand by the District on regional water supplies in order to mitigate any future drought's impact.

More information on State and Federally declared disasters in DSRSD's service area can be found at <http://quake.abag.ca.gov/mitigation/ThePlan-D-Version-December09.pdf>.

In addition to the declared disasters noted in Appendix D, locally significant incidents that have impacted DSRSD in the last several years include:

- Weather: Summer heat and Winter Flooding. During water extremes DSRSD monitors required potable water supplies during the summer and potential flooding during winter storms.
- January 3-5, 2008 -- Severe Winter Storm. Per 6-hour rainfall intensity, this storm was a 12-year storm. DSRSD monitored potential flooding and disruption to operations at the wastewater treatment plant.
- October 13, 2009 – Severe Winter Storm. Per 6-hour rainfall intensity, this storm was a 17-year storm. DSRSD monitored potential flooding and disruption to operations at the wastewater treatment plant.

Risk Assessment

Urban Land Exposure

Dublin San Ramon Services District examined the hazard exposure the urban land in the District's service area based on information in ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. The "2005 Existing Land Use with 2009 Mapping" file was used for this evaluation (in the existing plan, the file used was *Existing Land Use in 2000*”).

In general, the hazard exposure of Dublin San Ramon Services District is increasing over time as the amount of urban land increases (In the last 5 years, 2,576 acres of land have become urban). The following table describes the exposure of urban land within the District to the various hazards.



DSRSD Exposure to ABAG Local Hazards (acres of Urban Land)							
Hazard	Plan Year 2005			Plan Year 2010			Change
	Dublin	Dougherty Valley	WWTP	Dublin	Dougherty Valley	WWTP	
<i>Total Acres of Urban Land</i>	5,237	0	24	6,922	891	24	2,576
Earthquake Faulting (within CGS zone)	412	0	24	418	891	24	897
Earthquake Shaking (within highest two shaking categories) ¹	4,194	0	24	5,297	891	24	1,994
Earthquake-Induced Landslides (within CGS study zone) ²	0	0	0	384	0	0	384
Liquifaction (within moderate, high, or very high liquifaction susceptibility)	2,546	0	24	3,477	0	24	931
Flooding ³ (within 100 year floodplain)	196	0	24	230		24	34
Flooding (within 500 year floodplain)	323	0	24	588	0	24	265
Landslides (within areas of existing landslides)	1,746	0	0	3,094	0	0	1,348
Wildfire (subject to high, very high, or extreme wildfire threat) ⁴	694	0	0	1,666	0	0	972
Wildland-Urban Interface Fire Threat	2,455	0	0	3,278	0	0	823
Dam Inundation (within inundation zone)	728	0	0	752	0	0	24
Sea Leve Rise ⁵	not applicable						
Tsunamis ⁶ (within inundation area)	not applicable						
Drought ⁷	5,237	0	24	6,922	891	24	2,576

¹In large part because the Northern Calaveras fault runs through the portions Alameda and Contra Costa Counties served by DSRSD.

²The California Geological Survey continues to map Alameda county and added the Livermore –Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.

³The relatively small increase in urban land exposure to flooding is due to more accurate mapping in the most recent version.

⁴The relatively small increase in urban land exposure to wildfire is due to more accurate mapping in the most recent version.

⁵The sea level rise map is not a hazard map. It is not appropriate to assess DSRSD's infrastructure exposure to sea level rise since DSRSD's service area is at an elevation above all anticipated rises in sea level.

⁶Acres of exposed land are not an appropriate analysis for this hazard since the DSRSD service area is above all anticipated tsunamis. This map should be used for evacuation planning purposes only.

⁷The entire DSRSD service area is subject to drought.



Infrastructure Exposure

Dublin San Ramon Service Area also examined the hazard exposure of its infrastructure (primarily the potable, recycled water and sanitary sewer mains) within the jurisdiction based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 636 miles of mains in DSRSD, the following are exposed to the various hazards analyzed.

Exposure (miles of infrastructure)						
Hazard	Potable Water Mains		Recycled Water Mains		Sanitary Sewer Mains	
	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010	Plan Year 2005	Plan Year 2010
<i>Total Miles of Infrastructure</i>	163	286	29	55	172	295
Earthquake Shaking (within highest two shaking categories)	163	286	29	55	172	295
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	163	286	29	55	172	295
Liquefaction Hazard (within CGS study zone) ¹	163	286	29	55	172	295
Earthquake-Induced Landslides (within CGS study zone) ²	0	0	0	0	0	0
Earthquake Faulting (within CGS zone)	163	286	29	55	172	295
Flooding (within 100 year floodplain)	0	0	0	0	0	0
Flooding (within 500 year floodplain)	0	0	0	0	0	0
Landslides (within areas of existing landslides)	0	0	0	0	0	0
Wildfires (subject to high, very high, or extreme wildfire threat)	0	0	0	0	0	0
Wildland-Urban Interface Fire Threat	0	0	0	0	0	0
Dam Inundation (within inundation zone)	0	0	0	0	0	0
Sea Level Rise ³	not applicable					
Tsunamis ⁴	not applicable					
Drought ⁵	not applicable					

¹ The entire DSRSD potable water, recycled water and Sanitary sewer main network is susceptible to liquefaction hazard due to its nature.

² The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.

³ It is not appropriate to assess buried water and sewer mains infrastructure exposure to sea level rise.

⁴ DSRSD infrastructure is not susceptible to this hazard due to its elevation.

⁵ Drought is not a hazard for water and sewer mains.



Exposure of District-Owned Critical Facilities

Dublin San Ramon Service Area also examined the hazard exposure of its critical water and wastewater facilities located within the DSRSD service area and the district-owned buildings based on information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit2010.html>. DSRSD provided a list of critical facilities it owns to ABAG. ABAG provided a detailed assessment of the hazard exposure of each of those facilities. The following number of facilities is exposed to the various hazards analyzed.

Hazard	Locally owned critical facilities	
	Plan Year 2005	Plan Year 2010
<i>Total Number of Facilities</i>	<i>na</i>	<i>115</i>
Earthquake Shaking (within highest two shaking categories)	na	100
Liquefaction Susceptibility (within moderate, high, or very high liquefaction susceptibility)	na	88
Liquefaction Hazard (within CGS study zone) ¹	na	83
Earthquake-Induced Landslides (within CGS study zone) ²	na	1
Earthquake Faulting (within CGS zone)	na	3
Flooding (within 100 year floodplain)	na	1
Flooding (within 500 year floodplain)	na	2
Landslides (within areas of existing landslides)	na	25
Wildfires (subject to high, very high, or extreme wildfire threat)	na	14
Wildland-Urban Interface Fire Threat	na	93
Dam Inundation	na	78
Sea Level Rise (exposed to 16in sea level rise) ³	-	-
Sea Level Rise (exposed to 55in sea level rise) ⁴	-	-
Tsunamis ⁵ (within inundation area)	-	-
Drought ⁶	-	-

¹ The facilities in DSRSD's Wastewater Treatment Plant are in the area of liquefaction susceptibility.

² The California Geological Survey continues to map Alameda County and added the Livermore-Altamont area in late 2009. Though some areas of the County have not yet been completely mapped, the densely populated areas in Alameda County are mostly done.

³ Sea level rise data was not available in 2005

⁴ Sea level rise data was not available in 2005

⁵ No DSRSD facilities are susceptible to tsunamis.

⁶ Drought will not affect locally owned facilities directly.



Repetitive Loss Properties

There are zero repetitive loss properties in the Dublin San Ramon Services District based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>. In 2004 the District had zero repetitive loss properties that were outside the flood plain. It is currently unknown if any new repetitive loss property is also outside the flood plain. It is also unknown whether such property is residential, commercial, institutional, etc.

Other risks

Dublin San Ramon Services District examined its facilities for other potential risks than those in the ABAG list of risks and those risks identified in the planning region. It did not identify any other potential risks than those described in this report annex.

The District plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

National Flood Insurance Program

Dublin San Ramon Services District does not participate in the National Flood Insurance Program.

Mitigation Goals and Objectives

The goal of the ABAG 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. Dublin San Ramon Services District mirrors the region and uses the same goal in designing the DSRSD mitigation program.

To mitigate the effects of a severe earthquake, DSRSD has focused on projects that will enable to District to continue providing potable water and wastewater services after an earthquake. DSRSD has made arrangements with, and built Emergency Interties to the potable Water systems of adjacent water providers. To keep the distribution system operating in the event of a sustained power outage, DSRSD has initiated a program to retrofit the District's pump stations with connections for portable emergency power. To overcome the effects of regional road



closures, DSRSD has begun a program to stockpile emergency supplies of essential water treatment chemicals and repair supplies.

In addition, DSRSD has developed a District-wide strategy to cope with the effects of drought within the District by encouraging water conservation. DSRSD is cooperating with surrounding local governments to implement an Amador Valley-wide water conservation strategy to mitigate the effects of drought. As part of this strategy, DSRSD has implemented a policy of providing recycled water for irrigation to large-scale customers to significantly reduce the effects of drought on the potable water supply.

Mitigation Activities and Priorities

Evaluation of Progress from 2005 Plan

DSRSD did not participate in the 2005 LHMP and this annex is not an update.

Future Mitigation Actions and Priorities

As a participant in the 2010 ABAG multi-jurisdictional planning process, the staff of the Dublin San Ramon Services District helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. For DSRSD the decisions on priorities for the strategies were made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or the heritage of our jurisdiction. Within DSRSD, representatives from multiple departments have met to approve the priorities, review progress on DSRSD's strategies for 2010, and to identify and prioritize additional mitigation strategies to update the list.

These draft priorities were submitted to DSRSD's Management Committee for review. The draft priorities will be provided to the District's Board of Directors for adoption pending approval of this LHMP by FEMA.

The District's planning team also prioritized four specific mitigation tasks for the next 5 years. This list includes implementation process, funding strategy, responsible agency, and approximate time frame. These tasks are detailed in Exhibit D to DSRSD's 2010 Annex.



On-Going Mitigation Strategy Programs

The District has many on-going mitigation programs that help create a more disaster-resistant region. 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 priority to find additional funding to sustain these on-going programs over time.

- Construct Emergency Interties to neighboring providers in the potable water system to provide a back-up source of potable water.
- Retrofit DSRSD pumping stations for emergency power to keep the potable water supply viable for all pressure zones.
- Stockpile necessary treating chemicals and equipment in case of disaster-induced local shortages.
- Retrofit Central Dublin landscape irrigators to the Recycled Water system to lessen the demand on potable water.
- Continue to require fire sprinklers in buildings in those areas deemed to be wildfire threats on the urban border.
- Vulnerability assessments of District facilities and infrastructure (GOVT-a-1) :
- Non-structural mitigation for building contents (GOVT-a-4);
- Improved security measures at critical District facilities (GOVT-a-6);
- Development of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies. (GOVT-c-7);
- Maintain and update Alameda County's Standardized Emergency Management System Plan (GOVT-c-12);
- Participation in general mutual-aid agreements and agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters (GOVT-c-13);
- Develop printed materials, utilize existing materials (such as developed by FEMA and the American Red Cross), conduct workshops, and/or provide outreach encouraging employees of these critical health care facilities to have family disaster plans and conduct mitigation activities in their own homes (HEAL-a-7);
- Sponsor the formation and training of Community Emergency Response Teams (CERT) through partnerships with local businesses (GOVT-c-3, ECON-j-5, HWNG-k-6);
- Incorporate FEMA guidelines and suggested activities into local government plans and procedures for managing flood hazards (LAND-c-2);
- Increase efforts to reduce landslides and erosion in existing and future development through continuing education of design professionals on mitigation strategies (HSNG—i-2, ECON-g-2);
- Conduct an inventory of existing or suspected soft-story residential, commercial and industrial structures (HSNG-c-4, ECON-b-4);



- Continue to repair and make structural improvements to storm drains, pipelines, and/or channels to enable them to perform to their design capacity in handling water flows as part of regular maintenance activities (INFR—d-6, INFR-d-7)

Incorporation into Existing Planning Mechanisms

The District has several planning mechanisms through which the hazard mitigation efforts can be incorporated into regular District operations:

- ◆ Dublin San Ramon Services District Strategic Plan – Security of District Facilities section
- ◆ Dublin San Ramon Services District Capital Improvements Plan
- ◆ Dublin San Ramon Services District Urban Water Management
- ◆ Dublin San Ramon Services District Water Master Plan
- ◆ Dublin San Ramon Services District Wastewater Collection System Master Plan
- ◆ Dublin San Ramon Services District Wastewater Treatment Plant Master Plan

The District has a section devoted to Security of District Facilities in its Strategic Plan that includes a discussion of fire, earthquake, flooding, and landslide hazards. The mitigation plan described in this annex will be adopted as an implementation appendix to the Security of District Facilities section in future District Strategic Plans. In addition, the District sets specific construction requirements and standards in the District Code and in the DSRSD Standard Procedures, Specifications and Drawings that will help prevent adverse impacts on District infrastructure and resist the effects of natural disasters in our service area. DSRSD also enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The District has used these pre-existing programs as a basis for identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Plan Update Process

As required by the Disaster Mitigation Act of 2000, the Dublin San Ramon Services District will update this plan annex at least once every five years, by participating in a multi-agency effort with ABAG and other agencies to develop a multi-jurisdictional plan.

The District's Safety Division and Safety Officer will ensure that monitoring of this Annex will occur. The plan will be monitored on an on-going basis. The District Engineer or designee will have the responsibility to monitor the plan and to review it with any needed revisions to the Full Management Committee on at least an annual basis. In addition, the major disasters affecting our District, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used to review the Annex and update as needed. Finally, the Annex will be a



discussion item on the agenda of the meeting of Department leaders at least once a year (in April). At that meeting, the department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The Department leaders will be responsible for determining if the plan should be updated.

The District is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Safety Division will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the County 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, including the Alameda County Office of Emergency Services. Counties and other governmental entities should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the District 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. The response by the public in the previously scheduled meetings was disappointing. The District's Public Information group has been tasked to provide a plan to increase public participation in the next series of meetings for public input.

Mitigation Plan Point of Contact

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Alternate Point of Contact

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Exhibit A – Jurisdiction Boundary Map

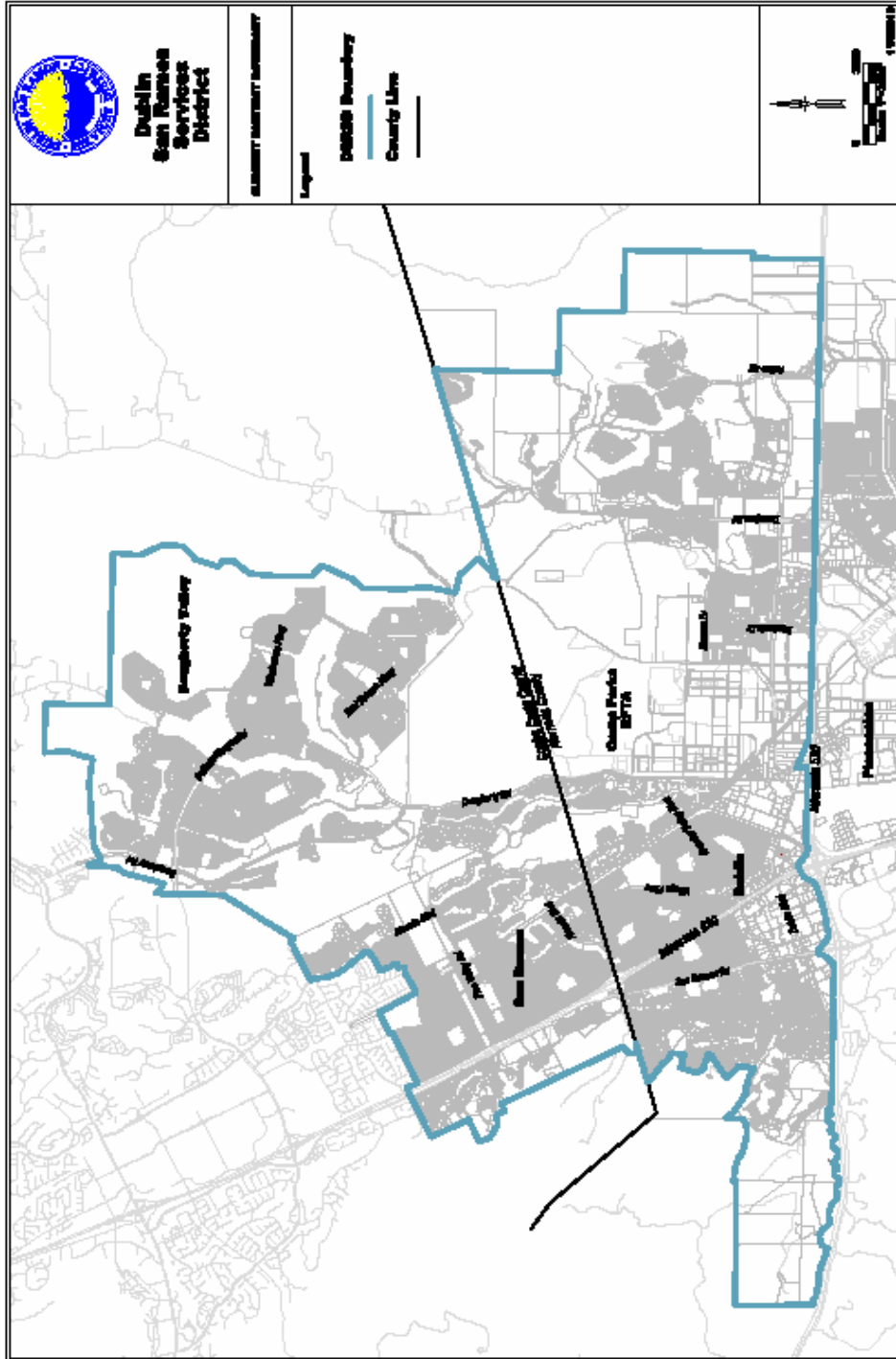




Exhibit B - Public Meeting Announcements



Dublin San Ramon Services District 7051 Dublin Blvd Dublin CA 94568

www.dsrdsd.com

news release

FOR IMMEDIATE RELEASE

September 21, 2009
Contact: Sue Stephenson, 925-875-2295, 925-570-5739 (cell), stephenson@dsrsd.com

DSRSD Invites Public Comment on Pre-Disaster Mitigation Plan

Dublin – Dublin San Ramon Services District (DSRSD) invites public comment and questions on its strategies to reduce or eliminate the impact of natural disasters on critical infrastructure that delivers potable and recycled water and collects and treats wastewater. The District will present a summary of its *Local Hazard Mitigation Plan* at a public meeting on Monday, September 28, at 4:00 p.m. in the District boardroom, 7051 Dublin Blvd., Dublin. Also, the presentation is available on the District's website at http://www.dsrdsd.com/news_and_event/LHMPslides.pdf.

The District is considering joining the Association of Bay Area Governments (ABAG) *Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area* (<http://quake.abag.ca.gov/mitigation/plan.html>). ABAG initially developed this plan in 2005 to build consensus on regional priorities for pre-disaster planning and mitigation. Each participating local government prepares an Annex to the plan that explains how regional mitigation strategies specifically apply to that agency's services and infrastructure. About 100 Bay Area cities, counties, and special districts currently participate.

"Collaborating with governments across the Bay Area will strengthen the District's internal planning. We also will be eligible to apply for federal funding for pre-disaster



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mitigation projects such as installing flexible joints on pipes that cross earthquake faults and purchasing additional back-up generators. Like other agencies in the region, we want to take steps before, rather than after, a disaster to keep critical services operating," said DSRSD Safety Officer Curt Strommen.

Mr. Strommen will summarize the District's hazard mitigation plan at the September 28 meeting and be available to answer questions. Also, public comments may be e-mailed to him at strommen@dsrsd.com, faxed to his attention at 925-462-0658, or mailed to Curt Strommen, DSRSD, 7051 Dublin Blvd., Dublin, CA 94568.

Founded in 1953, Dublin San Ramon Services District serves more than 143,000 customers, providing water service to Dublin and Dougherty Valley and wastewater collection and treatment to Dublin, south San Ramon, and Pleasanton (by contract). More information about the District can be obtained from its website, www.dsrsd.com.

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Exhibit C – DSRSD Specific Mitigation Strategy Sorted by Priority

2009 Strategy Code	Original Strategy Number	DSRSD Specific Mitigation Strategy Sorted by Priority	Applicable Hazards	Existing Program	Existing Program, underfunded	Very High - Unofficial Program-Becomes Official on Plan Adoption, no funding needed	High - Actively Looking for Funding	Moderate	Under Study	Not Yet Considered
Existing Program										
INFR										
a-3	a-3	Encourage the cooperation of utility system providers and cities, counties, and special districts, and PG&E to develop strong and effective mitigation strategies for infrastructure systems and facilities.	EQ LS WF FL DR SEC	X						
a-5	a-5	Support and encourage efforts of other (lifeline infrastructure) agencies as they plan for and arrange financing for seismic retrofits and other disaster mitigation strategies. (For example, a city might pass a resolution in support of a transit agency's retrofit program.)	EQ LS WF FL DR SEC	X						
a-6	a-6	Develop a plan for speeding the repair and functional restoration of water and wastewater systems through stockpiling of shoring materials, temporary pumps, surface pipelines, portable hydrants, and other supplies, such as those available through the Water /Wastewater Agency Response Network (WARN). Communicate that plan to local governments and critical facility operators.	EQ LS WF FL DR SEC	X						
a-7	a-7	Engage in, support, and/or encourage research by others (such as USGS, universities, or PEER) on measures to further strengthen transportation, water, sewer, and power systems so that they are less vulnerable to damage in disasters.	EQ LS WF FL DR SEC	X						
a-14	a-14	Encourage communication between State Emergency Management Agency (CalEMA), FEMA, and utilities related to emergencies occurring outside of the Bay Area that can affect service delivery in the region.	EQ LS WF FL DR SEC	X						
a-19	new	Coordinate with other critical infrastructure facilities to establish plans for delivery of water and wastewater treatment chemicals.	EQ LS WF FL SEC	X						
a-20	new	Establish plans for delivery of fuel to critical infrastructure providers.	EQ LS WF FL SEC	X						
a-21	new	As an infrastructure operator, designate a back-up Emergency Operations Center with redundant communications systems.	EQ LS WF FL SEC	X						
b-3	b-3	Include "areas subject to high ground shaking, earthquake-induced ground failure, and surface fault rupture" in the list of criteria used for determining a replacement schedule for pipelines (along with importance, age, type of construction material, size, condition, and maintenance or repair history).	EQ	X						
b-6	b-6	Install portable facilities (such as hoses, pumps, emergency generators, or other equipment) to allow pipelines to bypass failure zones such as fault rupture areas, areas of liquefaction, and other ground failure areas (using a priority scheme if funds are not available for installation at all needed locations).	EQ	X						
b-7	b-7	Install earthquake-resistant connections when pipes enter and exit bridges and work with bridge owners to encourage retrofit of these structures.	EQ	X						
b-8	b-8	Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling infrastructure facilities.	EQ	X						
b-9	b-9	Clarify to workers in critical facilities and emergency personnel, as well as to elected officials and the public, the extent to which the facilities are expected to perform only at a life safety level (allowing for the safe evacuation of personnel) or are expected to remain functional following an earthquake.	EQ	X						
d-5	d-5	Pursue funding for the design and construction of storm drainage projects to protect vulnerable properties, including property acquisitions, upstream storage such as detention basins, and channel widening with the associated right-of-way acquisitions, relocations, and environmental mitigations.	FL	X						
d-14	d-14	Determine whether or not wastewater treatment plants are protected from floods, and if not, investigate the use of flood-control berms to not only protect from stream or river flooding, but also increasing plant security.	FL	X						
e-1	e-1	Include "areas subject to ground failure" in the list of criteria used for determining a replacement schedule (along with importance, age, type of construction material, size, condition, and maintenance or repair history) for pipelines.	LS	X						



g-3	g-3	Provide materials to the public related to coping with reductions in water supply or contamination of that supply BEYOND regulatory notification requirements.	EQ LS WF FL DR SEC	X						
g-4	g-4	Provide materials to the public related to coping with disrupted storm drains, sewage lines, and wastewater treatment (such as that developed by ABAG's Sewer Smart Program).	EQ LS WF FL DR SEC	X						
g-5	g-5	Facilitate and/or coordinate the distribution of emergency preparedness or mitigation materials that are prepared by others, such as by making the use of the internet or other electronic means, or placing materials on community access channels or in city or utility newsletters, as appropriate.	EQ LS WF FL DR SEC	X						
HEAL										
HSNG										
ECON										
GOVT										
a-10	a-10	Ensure that government-owned facilities comply with and are subject to the same or more stringent regulations as imposed on privately-owned development.	EQ LS WF FL SEC	X						
a-11	a-11	Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling government-owned facilities.	EQ LS WF FL SEC	X						
a-12	a-12	Prior to acquisition of property to be used as a critical facility, conduct a study to ensure the absence of significant structural hazards and hazards associated with the building site.	EQ LS WF FL SEC	X						
a-13	new	Ensure that any regulations imposed on private-owned businesses (see "Economy Section") are enforced and imposed on local government's own buildings and structures.	EQ LS WF FL SEC	X						
b-1	b-1	Establish a framework and process for pre-event planning for post-event recovery that specifies roles, priorities, and responsibilities of various departments within the local government organization, and that outlines a structure and process for policy-making involving elected officials and appointed advisory committees.	EQ LS WF FL SEC	X						
b-3	b-3	Establish a goal for the resumption of local government services that may vary from function to function.	EQ LS WF FL SEC	X						
c-1	new (old b-4 moved to HSNG a-3)	Develop a plan for short-term and intermediate-term sheltering of your employees.	EQ LS WF FL SEC	X						
c-2	new	Encourage your employees to have a family disaster plan.	EQ LS WF FL SEC	X						
c-5	b-5 (b)	Periodically assess the need for changes in staffing levels, and additional or updated supplies, equipment, technologies, and in-service training classes.	EQ LS WF FL SEC	X						
c-6	b-6	Ensure that fire, police, and other emergency personnel have adequate radios, breathing apparatuses, protective gear, and other equipment to respond to a major disaster.	EQ LS WF FL SEC	X						
c-7	b-7	Participate in developing and maintaining a system of interoperable communications for first responders from cities, counties, special districts, state, and federal agencies.	EQ LS WF FL SEC	X						
c-12	b-12	Maintain and update as necessary the local government's Standardized Emergency Management System (SEMS) Plan and the National Incident Management System (NIMS) Plan, and submit an appropriate NIMSCAST report.	EQ LS WF FL SEC	X						
c-13	b-13	Continue to participate not only in general mutual-aid agreements, but also in agreements with adjoining jurisdictions for cooperative response to fires, floods, earthquakes, and other disasters.	EQ LS WF FL SEC	X						
d-1	c-1	Promote information sharing among overlapping and neighboring local governments, including cities, counties, and special districts, as well as utilities.	EQ LS WF FL SEC	X						
d-2	c-2	Recognize that emergency services is more than the coordination of police and fire response, for it also includes planning activities with providers of water, food, energy, transportation, financial, information, and public health services.	EQ LS WF FL SEC	X						
d-10	c-10	Cooperate with researchers working on government-funded projects to refine information on hazards, for example, by expediting the permit and approval process for installation of seismic arrays, gravity survey instruments, borehole drilling, fault trenching, landslide mapping, flood modeling, and/or damage data collection.	EQ LS WF FL SEC	X						
EDUC										
ENVI										



a-6	a-8	Comply with applicable performance standards of any <i>National Pollutant Discharge Elimination System</i> municipal stormwater permit that seeks to manage increases in stormwater run-off flows from new development and redevelopment construction projects.	FL	X						
a-9	a-11	Enforce and/or comply with the hazardous materials requirements of the State of California Certified Unified Program Agency (CUPA).	EQ LS WF FL SEC	X						
a-10	a-12	Provide information on hazardous waste disposal and/or drop off locations.	EQ LS WF FL SEC	X						
b-1	a-6 + a-7	Stay informed of scientific information compiled by regional and state sources on the subject of rising sea levels and global warming, especially on additional actions that local governments can take to mitigate this hazard including special design and engineering of government-owned facilities in low-lying areas, such as wastewater treatment plants, ports, and airports.	LS WF FL DR	X						
b-5	new	Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology.	LS WF FL DR	X						
b-6	new	Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money.	LS WF FL DR	X						
b-7	new	Purchase only Energy Star equipment and appliances for local government use.	LS WF FL DR	X						
b-10	new	Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.	LS WF FL DR	X						
b-11	new	Increase recycling rates in local government operations and in the community.	LS WF FL DR	X						
LAND										
Underfunded Existing Programs										
INFR										
a-1	a-1	Assess the vulnerability of critical facilities owned by infrastructure operators to damage in natural disasters or security threats, including fuel tanks and facilities owned outside of the Bay Area that can impact service delivery within the region. Note - Infrastructure agencies, departments, and districts are those that operate transportation and utility facilities and networks.	EQ LS WF FL SEC		X					
a-4	a-4	Retrofit or replace critical lifeline infrastructure facilities and/or their backup facilities that are shown to be vulnerable to damage in natural disasters.	EQ LS WF FL SEC		X					
a-8	a-8	Pre-position emergency power generation capacity (or have rental/lease agreements for these generators) in critical buildings of cities, counties, and special districts to maintain continuity of government and services.	EQ LS WF FL SEC		X					
a-11	a-11	Minimize the likelihood that power interruptions will adversely impact lifeline utility systems or critical facilities by ensuring that they have adequate back-up power.	EQ LS WF FL SEC		X					
b-2	b-2	Establish a higher priority for funding seismic retrofit of existing transportation and infrastructure systems (such as BART) than for expansion of those systems.	EQ		X					
b-4	b-4	Install specially-engineered pipelines in areas subject to faulting, liquefaction, earthquake-induced landsliding, or other earthquake hazard.	EQ		X					
b-5	b-5	Replace or retrofit water-retention structures that are determined to be structurally deficient, including levees, dams, reservoirs and tanks.	EQ		X					
c-1	c-1	Ensure a reliable source of water for fire suppression (meeting acceptable standards for minimum volume and duration of flow) for existing and new development.	WF		X					
c-2	c-2	Develop a coordinated approach between fire jurisdictions and water supply agencies to identify needed improvements to the water distribution system, initially focusing on areas of highest wildfire hazard (including wildfire threat areas and in wildland-urban-interface areas).	WF		X					
d-6	d-6	Continue to repair and make structural improvements to storm drains, pipelines, and/or channels to enable them to perform to their design capacity in handling water flows as part of regular maintenance activities. (This strategy has the secondary benefit of addressing fuel, chemical, and cleaning product issues.)	FL		X					
d-15	d-15	Work cooperatively with water agencies, flood control districts, Caltrans, and local transportation agencies to determine appropriate performance criteria for watershed analysis.	FL		X					
d-18	new	Using criteria developed by EPA for asset management, inventory existing assets, the condition of those assets, and improvements needed to protect and maintain those assets. Capture this information in a Geographic Information System (GIS) and use it to select locations for creek monitoring gauges.	FL		X					



		HEAL									
		HSGN									
g-8	g-8	Work to ensure a reliable source of water for fire suppression in rural-residential areas through the cooperative efforts of water districts, fire districts, and residents.	WF		X						
		ECON									
		GOVT									
a-1	a-1	Assess the vulnerability of critical facilities (such as city halls, fire stations, operations and communications headquarters, community service centers, seaports, and airports) to damage in natural disasters and make recommendations for appropriate mitigation.	EQ LS WF FL		X						
a-2	a-2	Retrofit or replace critical facilities that are shown to be vulnerable to damage in natural disasters.	EQ LS WF FL SEC		X						
a-4	a-4	Conduct comprehensive programs to identify and mitigate problems with facility contents, architectural components, and equipment that will prevent critical buildings from being functional after major natural disasters. Such contents and equipment includes computers and servers, phones, files, and other tools used by staff to conduct daily business.	EQ LS WF FL SEC		X						
b-2	b-2	Prepare a basic Recovery Plan that outlines the major issues and tasks that are likely to be the key elements of community recovery, as well as integrate this planning into response planning (such as with continuity of operations plans).	EQ LS WF FL SEC		X						
b-4	b-25	Develop a continuity of operations plan that includes back-up storage of vital records, such as plans and back-up procedures to pay employees and vendors if normal finance department operations are disrupted, as well as other essential electronic files.	EQ LS WF FL SEC		X						
b-5	new	Plans should be made for the emergency relocation of government-owned facilities critical to recovery, as well as any facilities with known structural deficiencies or in hazardous areas.	EQ LS WF FL SEC		X						
c-8	b-8	Harden emergency response communications, including, for example, building redundant capacity into public safety alerting and/or answering points, replacing or hardening microwave and simulcast systems, adding digital encryption for programmable radios, and ensuring a plug-and-play capability for amateur radio.	EQ LS WF FL SEC		X						
c-9	b-9	Purchase command vehicles for use as mobile command/EOC vehicles if current vehicles are unsuitable or inadequate.	EQ LS WF FL SEC		X						
c-10	b-10	Maintain the local government's emergency operations center in a fully functional state of readiness.	EQ LS WF FL SEC		X						
c-11	b-11	Expand or participate in expanding traditional disaster exercises involving city and county emergency personnel to include airport and port personnel, transit and infrastructure providers, hospitals, schools, park districts, and major employers.	EQ LS WF FL SEC		X						
c-25	new	Support and encourage planning and identification of facilities for the coordination of distribution of water, food, blankets, and other supplies, coordinating this effort with the American Red Cross.	EQ LS WF FL SEC		X						
d-9	c-9	Conduct and/or promote attendance at local or regional hazard conferences and workshops for elected officials and staff to educate the officials on the critical need for programs in mitigating earthquake, wildfire, flood, and landslide hazards.	EQ LS WF FL SEC		X						
		EDUC									
		ENVI									
b-2	new	Inventory global warming emissions in your own local government's operations and in the community, set reduction targets and create an action plan.	LS WF FL DR		X						
		LAND									
		Moderate									
		GOVT									
a-6	a-6	When Installing micro and/or surveillance cameras around critical public assets tied to web-based software, and develop a surveillance protocol to monitor these cameras, investigate the possibility of using the cameras for the secondary purpose of post-disaster damage assessment.	EQ LS WF FL SEC							X	
a-7	a-7	Identify and undertake cost-effective retrofit measures related to security on critical facilities (such as moving and redesigning air intake vents and installing blast-resistant features) when these buildings undergo major renovations related to other natural hazards.	EQ LS WF FL SEC							X	
a-9	a-9	As a secondary focus, assess the vulnerability of non-critical facilities to damage in natural disasters based on occupancy and structural type, make recommendations on priorities for structural improvements or occupancy reductions, and identify potential funding mechanisms.	EQ LS WF FL SEC							X	
		ENVI									
b-9	new	Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel.	LS WF FL DR							X	



Under Study										
ENVI										
a-11	new	When remodeling existing government and infrastructure buildings and facilities, remove asbestos to speed up clean up of buildings so that they can be reoccupied more quickly.	EQ	LS					X	
WF FL										
SEC										
Not Yet Considered										
INFR										
d-18	new	Using criteria developed by EPA for asset management, inventory existing assets, the condition of those assets, and improvements needed to protect and maintain those assets. Capture this information in a Geographic Information System (GIS) and use it to select locations for creek monitoring gauges.	FL							X



Exhibit D – 2010 Mitigation Projects for DSRSD

2010 MITIGATION PROJECTS										Exhibit D to 2010 Dublin San Ramon Services District Annex
No.	Mitigation Project	2010 MJ-LHMP Strategy Number	Applies to New or Existing Assets	Hazard Mitigated	Responsible Agency	Implementation	Estimated Cost	Anticipated Funding Source	Anticipated Schedule	Comments
1	Complete Potable Water Emergency Interties with EBMUD, City of Pleasanton and City of Livermore	INFR-a-3	Existing	Earthquake	DSRSD, EBMUD, City of Pleasanton and City of Livermore	Study completed which identified these potential Emergency Interties. Interties constructed at 4 sites. Engineering plans will be developed in 2 years and then construction will begin for last 2 sites.	\$400-600k	DSRSD, City of Pleasanton and City of Livermore Capital Budgets	Engineering plans to be developed in next year for last 2 sites. Construction in 2 to 3 years.	Four of six planned Interties completed. Last two interties being planned. Interties with cooperating agencies EBMUD, City of Pleasanton and City of Livermore.
2	Retrofit DSRSD Pumping Stations for Portable Emergency Power	INFR-a-11	Existing	Earthquake	DSRSD	Engineering study completed which identified these 15 stations needing retrofit for Emergency Power. Retrofit done for 10 pump stations. Planned for remaining 5 and 23 future pump stations.	\$500-700k	DSRSD Capital Budget	Implementation of project done over last 5 years. Project is expected to take 3-5 years to complete depending on development schedule.	Two pump stations in east Dublin will incorporate connections for Emergency Power.
3	Stockpile Necessary Treating Chemicals and Repair Equipment for Local Shortages	INFR-a-6 and INFR-a-19	Existing	Earthquake	DSRSD	Project is underway. Approximately 30% of Planned stockpile now being maintained.	\$100-200k	DSRSD Capital Budget	Project is expected to take 2-3 years to complete.	Stockpiles of essential supplies will be maintained at DSRSD's WWTP and at the Field Operations Center.
4	Central Dublin Recycled Water Retrofit	INFR-a-5 and ENV-b-11	Existing	Drought	DSRSD, City of Dublin, City of Pleasanton	Study completed which identified the required retrofits in existing Recycled Water system. Engineering plans will be developed when funding becomes available through BACWA. Construction will begin after funding obtained	\$4,200-4,700k	BACWA's San Francisco Bay Area's submittal for the Prop 84 funding under the Integrated Regional Water Management Plan	Implementation will begin as soon as funding is awarded. Project is expected to take 1-2 years to complete.	Connect Central Dublin and some City of Pleasanton Recycled Water customers to the existing Recycled Water mains. Retrofit will implement conservation measures outlined in the City of Dublin Downtown Specific Plan and City of Pleasanton Specific Plan.